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The EDUCATIONAL RECORD

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A. J. Brumbaugh, *Editor*

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The Educational Record

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Evaluation Procedures for General Education Objectives

By Paul L. Dressel

Evaluation procedures, particularly the more formal ones usually designated as tests, are too frequently something apart from instruction. Particularly is this true when the major purpose is that of arriving at a grade for the student. The value of tests for grading purposes cannot be denied, but tests so used must be subjected to limitations which result in a narrow evaluation program. Such a program does little to reveal student growth with regard to many goals and even less toward providing information desirable for improvement of instruction. Even evaluation programs founded on broader considerations have a disconcerting way of ending in a series of statistical tables and in vague generalities which influence our educational program but little.

The purpose of these remarks, and of the questions and discussion which follow, is to suggest an approach to evaluation which will interrelate instruction and evaluation and make it clear that the two are but two sides of one coin—the coin being the medium of exchange which enables us, as teachers, to purchase optimum student development with regard to our, and their, educational goals. Such evaluation proceeds along the following lines:

1. Goals or objectives are determined and stated.

2. These goals are clarified by stating them in terms of definite and observable behavior (interpreted in a broad sense to include attitudes, beliefs, actions, participation, ways of thinking, etc.) on the part of the individual as he deals with problems, situations, and issues which confront him.

3. Procedures are developed to obtain evidence of the presence of these behaviors.

4. Evidence of change in students is obtained and analyzed. This means accumulation of the same kind of evidence before and after the educational experience which we wish to evaluate.

5. The implications of these data for changes in classroom activity, teaching techniques, or even in objectives are considered.

6. Appropriate changes in classroom activity are made, and the steps are repeated—as a check on the efficacy of the changes and as a basis for their improvement.

The actual work of carrying out such an evaluation is somewhat less easy in fact than in theory. The questions which follow may be helpful in facilitating the kind of thinking required. Although the earlier questions seem to form a natural starting point, there is no great significance in the order of them. Some questions will be found to be inappropriate at certain stages of thinking and for certain situations. Many of them can be answered on the basis of either (*a*) best guesses as to the way individuals react and to what they react, or (*b*) actual evidence on how and to what they react. Frequently the initial stages in development of an evaluation device will have to be based on hunches, but it is suggested that as rapidly as actual responses or reactions of individuals can be obtained, this be done. People do not always react as we think they will or as we think they should.

So that the reader may obtain some idea of their cumulative significance, the entire list of questions to be discussed is presented first. Following this list is a discussion of each question in turn, using a particular educational objective as an example of what the question involves or implies.

Questions To Be Answered in Developing an Evaluation Device or Technique

1. What does this objective mean in terms of definite and concrete action, feeling, or behavior on the part of the individual? Faced with a group of individuals of unknown educational background, what would distinguish between those who have and those who have not attained the objective?

2. What are some of the specific situations, problems, or experiences which confront individuals and in which the type of behavior described by this objective is necessary or desirable? What is the range of situations in terms of type, complexity, involvement of other factors, etc., in which this objective is involved?

3. At exactly what point, or to what elements in the problem or situation, is the described behavior applicable?

4. What other types of behavior seem to be involved in many, or most, situations in which the desired behavior is applicable?

5. Is the desired behavior sufficiently distinct to be noted separately, or must it be noted only as it occurs in conjunction with some more involved, and perhaps more meaningful, behavior pattern?

6. Does this conjunction of behaviors and possible inability to separate the particular one in question suggest a redefinition of the original objective, or a grouping-together of several related objectives?

7. Should this objective be related to others, or considered simultaneously with others in evaluation on the basis of logic, reality, or convenience, even though separation is possible?

8. Is the desired behavior a totality of more specific behaviors which may not be closely related to one another?

9. Is it possible to place before students, or to place students in, the real or true-to-life situations which have been considered? If not, what modifications must be made, and on what basis?

10. Is it desirable to construct a less realistic situation in which achievement with respect to this particular objective is more easily noted and is more clearly separated from other objectives and from random elements?

11. What kind of record is to be kept of the student's behavior in the situation? How is the record to be analyzed? What is to be done with the results?

12. Of those individuals who are observed to handle adequately a situation supposedly involving a certain behavior: (*a*) Do all show that behavior? (*b*) Do they show it in varying ways and amounts? (*c*) In what ways do they differ? (d) Do some show complete absence, or almost complete absence, of the behavior?

13. If presence of the desired behavior is not found to be necessary for success in the total situation, what are the alternative patterns of behavior which succeed, and to what knowledge, experience, interests, attitudes, etc., are these due?

14. Is the desired behavior, even though not necessary, deemed desirable on aesthetic, ethical, or other grounds? Another way to ask this is: Is a certain process, behavior, or activity considered *good* in itself, even though not necessary for satisfactory handling of situations in which individuals find themselves?

15. What are the specific classroom experiences—readings, demonstra-

tions, discussions, activities, or lectures—which are thought to contribute to the growth of the individual with regard to the objective?

16. Do the classroom experiences add measurably to the growth of the individual as compared with other individuals who have not had these particular experiences? If not, is this due to lack of, faulty, or inadequate classroom experiences, or is it simply that growth with regard to the objective is so slow and complex as to be hardly noticeable?

17. Do the analysis of the objective and the discussion of situations involving it suggest any additional activities which might be carried on in the classroom, or any different way of teaching? To what extent are the evaluation exercises also usable as learning devices or instructional techniques?

18. Do the clarification of the objective and the accumulation of evidence of growth with regard to it provide any basis for greater student motivation?

19. What relations exist between growth with regard to this objective and such factors as (*a*) intelligence; (*b*) status at beginning of course; (*c*) grading of the student?

20. What is the optimum growth which may be expected for various kinds of students with regard to this objective?

Discussion of the Questions and Illustrative Application to an Educational Objective

The preceding series of questions assume greater significance as one applies them to the analysis or definition of a particular objective. A commonly recurring objective, and one which has been worked on more than most, is frequently stated in some such terms as "*The student should develop the ability to make meaningful interpretations of various kinds of data.*"

Let us take each of the questions we have suggested and see what light is thrown on this objective by an attempt to answer the question. For convenience in reading, each question will be restated and then discussed.

1. *What does this objective mean in terms of definite and concrete action, feeling, or behavior on the part of the individual? Faced with a group of individuals of unknown educational background, what would distinguish between those who have and and those who have not attained the objective?*

In attempting to define interpretation of data in terms of concrete actions or behavior, it is necessary to consider what is

meant by "interpret" and what is included in "data." Data may be presented in various ways: numerical tables, charts, graphs, pictures, paragraphs; and the student will need to deal with all of them. Data are usually thought of as being quantitative, but this is not necessarily so. Admission of nonquantitative data extends the scope of the objective so that it is in danger of becoming meaningless. Let us then restrict the objective to quantitative data for purposes of this discussion. The precise type of interpretation may depend on the form in which the data are presented, but we might include such specifics as:

Being able to select or to read particular numerical values included in the data.

Being able to estimate (interpolate) probable values between given values.

Being able to estimate (extrapolate) probable values slightly beyond the given values.

Being able to draw some conclusions about adequacy of sampling as a basis for generalizing from the data.

Being able to recognize and point out errors in interpretations accompanying data and in statements for which the data are inadequate or irrelevant.

Being able to compare and contrast two or more different forms, or different but related types of data.

Being able to apply known facts and principles to validate or question the implications of data.

Being able to recognize the difference between statements fully justified or "true" on the basis of the data and statements which are given some support or are "probably true," and, likewise, for false and probably false statements.

This is sufficient specification to indicate what is involved in clarifying the objective. The specifics have not yet been stated in terms of concrete action or behavior, but that step is reasonably evident. Presented with data in some one of the forms mentioned, the individual should be able to make a series of statements involving the above-mentioned elements; or, presented with an interpretation or analysis of certain data, the individual should be able to judge the adequacy and correctness of the interpretation, again employing the above types of interpretation, and possibly others.

2. *What are some of the specific situations, problems, or experiences which confront individuals and in which the type of behavior described by this objective is necessary or desirable? What is the range of situations in terms of type, complexity, involvement of other factors, etc., in which this type of objective is involved?*

This question involves the determination of the characteristics of the data with which individuals now and as adults will, or should, be able to deal. Such characteristics being made explicit, it is desirable also to get actual data of the various types, forms, levels of difficulty, etc., with which the individual will be called upon to deal. The principles of selection of data will vary with the instructors and courses. Some such principles as the following might be developed.

a) The data should be related to issues or problems about which the individual should make some decision or take some action.
b) The data should have some relevance to the field or area for which the evaluation program is being developed.
c) The data should include examples of the type used in newspapers and in current periodicals.
d) The data should include examples of the type which the student will encounter in more advanced courses in the area.
e) The data should include examples in which knowledge of essential facts and understanding of important principles are necessary for a meaningful interpretation.

With these and other suitable specifications in mind, the collection of actual data can begin. As various examples are examined and either kept or rejected, additional specifications will undoubtedly be developed.

For example, a CIO report on corporate profits and wage increases would be a legitimate data source, but an evaluation program heavily weighted with material from labor-union sources would not only be unrealistic in terms of representing the actual needs of individuals in dealing with data, but also would imply a bias that might color the reactions of all exposed to the evaluation program. There might be added then the specification that:

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f) Data suspect because of possible bias must either be so treated that the evaluators themselves cannot be accused of the same or opposite bias, or they must be balanced by data from other sources, and perhaps dealing with other issues, but equally suspect of contrary bias.

3. *At exactly what point, or to what elements in the problem or situation, is the described behavior applicable?*

The determination of the specific elements in the situation to which the described behavior is applicable may be easy, or difficult, depending on the degree of complication involved in the situation. Thus, the interpretation of data may itself be only one step in arriving at a conclusion in which other known elements are involved, or in which allowance or adjustment has to be made for unknown factors. (Even in an apparently uncomplicated situation, when certain data are deemed appropriate for interpretation, it is quite probable that not all elements of the ability to interpret data are equally applicable.) One implication of this question is, then, to determine the kinds of interpretation which are relevant to given data and to problems wherein such data would be useful. A second implication is that of relating the behavior "interpretation of data" to other behavior which might be appropriate in use of the data. The latter consideration evidently leads into the next question.

4. *What other types of behavior seem to be involved in many, or most, situations in which the desired behavior is applicable?*

It has just been noted that the determination of other types of behavior involved in situations calling for interpretation of data is closely related to the preceding question as to the specific elements in the situation to which the described behavior is applicable. Consideration of various types of data and attempts to interpret them soon convince one that the skills of data interpretation frequently involve and are always closely related to:

a) Ability to detect propaganda.
b) Ability to distinguish among definition, fact, assumption, and opinion.
c) Ability to read, particularly when the data are given in a paragraph form (an ability which in itself is subject to almost endless analysis).
d) Objectivity of attitude.

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e) Willingness to suspend judgment.
f) Concern about having facts as a basis for judgment.

5. Is the desired behavior sufficiently distinct to be noted separately, or must it be noted only as it occurs in conjunction with some more involved, and perhaps more meaningful, behavior pattern?

The question asks for a discussion as to whether interpretation of data as previously defined is sufficiently distinct from some of the abilities listed in answering question 4 to be considered separately, or whether some larger or more involved behavior pattern should be set as the objective. At the level at which interpretation skills have been analyzed, it is clear that some skills, such as interpolation or reading of a point from a graph or a value from a table, can be separated from other skills. Judgment of the adequacy of sampling for justifying certain statements may frequently be inseparable from the ability to detect propaganda. Interpretation of data presented in a running paragraph involves general reading skills. Interpretation of data which imply or demonstrate that beliefs strongly held by an individual are untenable will involve the objectivity of that individual. From these facts one may conclude that some interpretation skills are easily isolable, others are less so, and, furthermore, that careful selection of the kinds and types of data will be a major factor in determining whether a skill can be isolated from others. Even then it must be recognized that data which—for example—involve no belief or prejudice to most individuals may, and probably will, do so for a few. Complete separation of one kind of behavior from all others is probably neither possible nor desirable.

6. Does this conjunction of behaviors and possible inability to separate the particular one in question suggest a redefinition of the original objective, or a grouping-together of several related objectives?

The answer to this question depends partially on convenience and partially on one's desires about the relative independence of

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objectives. One instructor or group of instructors might decide that all interpretation of data skills should be considered as reading skills. Others might decide that since graphical, tabular, and pictorial presentations are relatively independent of reading, interpretation of data should be restricted to these, and the paragraph form should be subsumed under reading skills. Such issues are typical of those which may be raised. The answers should be selected so as to clarify the behaviors involved and result in greater acceptability to, and usability by, the teachers concerned.

7. *Should this objective be related to others, or considered simultaneously with others in evaluation on the basis of logic, reality, or convenience, even though separation is possible?*

Quite apparently this question is very closely related to the preceding one. However, question 6 raises the problem of redefining objectives primarily from the viewpoint that the original objective may not be readily separated from others. Question 7 suggests that even though such separation is possible there may have been discovered grounds—logical or practical—for combining it with other objectives.

A simple illustration of the significance of this question in connection with the objective, interpretation of data, grows out of the fact that ability to interpolate (and other interpretation skills also) can be tested on abstract tables of numbers—as, for example, in the American Council on Education Psychological Examination Number Series section, which tests ability to extrapolate. On the basis of reality it might be argued that interpretation should be done on data that have some actual significance for most people. This last condition introduces a content element, in that the data then involve science, social science, etc., and familiarity with the type of data, or with the methods, facts, and concepts of the field determines in part the individual's ability to react to the data. Most teachers will prefer relating content and interpretation of data rather than using a highly artificial situation devoid of content.

8. *Is the desired behavior a totality of more specific behaviors which may not be closely related to one another?*

The objective of interpretation of data has already been broken down into a number of different skills, and it has been decided that some of these, at least, are identifiable more or less separately from others. It seems, then, that the objective states a reasonably distinct behavior which can be analyzed into more or less related specific skills. The degree of interrelationship of the skills can be determined only by study of student response—with the probability that individuals will vary greatly. The point is that we have good reason to suspect, and actually there is some evidence, that the ability to make one kind of interpretation does not assure ability to make other kinds.[1]

9. *Is it possible to place before students, or to place students in, the real or true-to-life situations which have been considered? If not, what modifications must be made, and on what basis?*

The practicability of placing students in true-to-life situations is a fundamental issue in evaluation. Such situations are complex ones in which facts, opinions, emotions, attitudes, values, and social interaction may all be involved. To the extent that these are inextricably related, the situation is inappropriate for use in mass evaluation programs. To the extent that the situations are modified or are carefully selected, they become unrealistic or unrepresentative and, hence, less predictive of actual performance. The striving to get away from education, testing, and evaluation based on purely intellectual objectives has been in part based on a recognition that these goals alone, even when attained, did not result in an individual who would think and act in an entirely creditable manner. Realism in evaluation is necessary, for only as we know how our products actually perform can we judge whether we have accomplished our purposes.

A commitment to realism in evaluation involves at least these steps:

[1] E. R. Smith, R. W. Tyler, *et al., Appraising and Recording Student Progress* (New York: Harper & Bros., 1942), pp. 56–60.

a) Some follow-up of graduates must be made, for behavior after leaving college provides the ultimate evidence of performance of our students in real situations.

b) A wide range of techniques must be utilized in collecting evidence on student behavior (which includes knowledge, thinking, attitudes, emotions, beliefs, activities, etc.).

c) Evaluation must be a cooperative venture with students; otherwise candid reactions cannot be obtained to many of the problems or situations with which they are concerned or with which they are asked to deal.

d) Evaluation materials must not be selected because right and wrong answers are clearly distinguishable, but because they present students with problems in which many factors must be taken into account, such as is the case in actual situations.

This clearly means that teachers must not too lightly and quickly reject everything but paper-and-pencil tests as impractical. In grading students the natural feeling is that the grades should be defensible and that everyone must take all tests because everyone is given a grade. If grades are not involved, mass procedures are not always necessary. Evidence on the growth of subgroups of students may for many matters be as valuable and even more usable than a mass of data on all. Again, not every teacher or department is obligated to collect evidence on all objectives. Where common objectives exist for several departments, some division of labor should be possible, with certain individuals or departments taking major responsibility for certain tasks but with results being shared by all.

Tests used for grading and objective and published achievement tests must make concessions through eliminating many types of controversial materials, through requiring essential "rightness" of a correct answer, and the like, which result frequently in a colorless and unrealistic task. Test items or situations rejected from tests through such concessions may make excellent exercises for free discussion, writing or other classroom procedures, with the ambiguity or contentious quality of the material being the very element which makes them worth while. Students' reactions may not be summarizable in terms of a score, but they will nevertheless yield valuable insights into their abilities.

With regard to the objective, interpretation of data, it is soon found that the full range of interpretation situations cannot be

included in a formal objective test situation. Moreover, most data are not apt to be in a form which is economical for use in a test. They may be too extensive for reproduction, too detailed, or may not involve enough elements to be well adaptable to a variety of types of interpretations.

Under some circumstances a class may in its deliberations collect or obtain certain data which the individuals then interpret in a more or less "real" situation. Such situations are not likely to arise often enough to provide adequate evidence on the growth of each individual, and the difficulty of recording the results of such informal activity is formidable. The presentation of data which are supposedly related to the concerns of students or their classroom work, with a request that they write out an interpretation, is less realistic. Consideration of possible interpretations is frequently a major consideration in collecting data. Furthermore, the task of writing out an interpretation of a set of data in which one has no marked interest is not an easy one. Since the student has no purpose of his own in making that interpretation, he is apt to concern himself with what he thinks the instructor who assigned the task would like him to do.

Ordinarily one would not take data and interpolate between two values unless a need for such interpolation were evident. Hence, it is absurd to expect that the instructions "interpret the following data" will call forth from students all the skills of data interpretation. Perhaps it is even absurd to expect an intelligent response to such an artificial situation. Data are collected to answer questions and to check hypotheses, not just to interpret. A feeling of the need for evidence on which to base a judgment and a concern for the correctness of one's decision are, in a real situation, essential elements of the objective "interpretation of data."

A structuring of the problem situation becomes a necessity. In addition to presenting the data, indication through specific questions of the interpretations to be made is needed. From a chart showing the population of a city every five years for a hundred years, one may request an estimate of the population at an intermediate year. In effect, this request supplies the

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concern or need which is otherwise lacking, but the situation certainly is not fully realistic. A further question will be whether the individual is requested to work out and justify his own answer or whether he is asked to select or pass judgment on presented answers.

Making interpretations and *judging* interpretations are certainly not identical, but both are important. People are continually called upon to judge the interpretations of others, and they should be making some interpretations of their own. It follows that instruction and evaluation on both points are desirable.

For this particular objective it is seen that considerable realism must be sacrificed in evaluation, but that, with care in selection of materials and in the tasks posed to the individual, the loss in realism can be reduced.

10. *Is it desirable to construct a less realistic situation in which achievement with respect to this particular objective is more easily noted and is more clearly separated from other objectives and from random elements?*

This question is almost certain to be answered in the affirmative, because real situations cannot always be brought to the classroom or observed at will. Furthermore, it may be desirable to isolate certain skills or abilities in order to detect more clearly the student's status with regard to them. This is to be expected and cannot be criticized, provided that the integration and use of the various abilities are not overlooked. In tennis one must learn to serve, volley, lob, drive, etc., but doing each of these well does not make a tennis player. For convenience one may want to check on the growth of skill in interpreting data more or less separately from other related objectives, but it must be kept in mind that the ability is of little practical value unless it is so related to other objectives that the individual actually does make meaningful interpretations in real situations.

11. *What kind of record is to be kept of the student's behavior in the situation? How is the record to be analyzed? What is to be done with the results?*

The sort of record to be kept on a student's performance ought to be clearly envisaged before the evaluation techniques are finally fixed. It will be desirable to obtain a score or rating on each of the behaviors involved in an objective if the results are being used to determine and facilitate growth.

In answer to question 1 an analysis of the behaviors involved in interpretation of data was given. In accordance with this analysis one might possibly wish to check on each of the types of interpretations: on the tendency to draw conclusions not justified by the data or to refuse to draw conclusions justified by the data, on the ability to deal with data presented in various forms, on the ability to distinguish between true and false interpretations, etc. This is quite different from single-score testing for grading. The results of such a complex record can be used:

a) To investigate the extent of the relationship of the various abilities.
b) To determine group changes (provided pretest results are available).
c) To work with individual students on particular weaknesses.
d) To revise classroom procedure and assignments to provide added or different experience on the points of least growth.

12. *Of those individuals who are observed to handle adequately a situation supposedly involving a certain behavior: Do all show that behavior? Do they show it in varying ways and amounts? In what ways do they differ? Do some show complete absence or almost complete absence of the behavior?*

13. *If presence of the desired behavior is not found to be necessary for success in the total situation, what are the alternative patterns of behavior which succeed, and to what knowledge, experience, interests, attitudes, etc., are these due?*

14. *Is the desired behavior, even though not necessary, deemed desirable on aesthetic, ethical, or other grounds? Another way to ask this is: Is a certain process, behavior, or activity considered good in itself even though not necessary for satisfactory handling of situations in which individuals find themselves?*

Although these three questions are somewhat different, answering them calls for the same basic considerations. Two major elements are involved:

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a) A distinction between process or method and outcome or result.
b) Ethical and/or aesthetic considerations.

The first of these simply is a reminder that the same outcome or result may be reached through different processes—one person may guess or jump to conclusions; another may collect data and arrive logically at the same position. To make the matter more specific, assume that the data which are used in evaluation are actual data. In making or judging a certain interpretation, one individual may carefully analyze and interpret the data; another who is already familiar with the facts presented by the data may respond in terms of his previous knowledge or understanding. The objective we desired to evaluate is not necessarily involved in arriving at the correct answer. Of course, in this particular case the alternative method is not a generally applicable one, but becomes a possibility only because of a conjunction of particular data with an individual of particular background.

Another possibility is that the method which has been taught is inappropriate for a particular problem. If, as is occasionally the case, students are taught that interpolation involves an arithmetical computation utilizing a straight line through the two points nearest the point to be interpolated, they may answer incorrectly interpolation items based on curves of complex pattern. The occasional student who ignored the specific method of linear interpolation and read a point from a smooth curve would get better results than the student who applied the method taught.

To use still another example, consider the problem of selecting content for a general education course in the humanities. One group may simply discuss the various possibilities and render a decision on the basis of their expert knowledge of the field and their beliefs about its probable effect on students. Another group might try out several patterns and collect actual data on the student growth under the different approaches, making their final decision on the basis of this evidence. Here is a problem with no universally accepted answer and no universally accepted criteria for judging the adequacy of any proposed solution. An adequate solution from certain viewpoints might involve no in-

terpretation of data; from other viewpoints no solution would be acceptable without such data.

Still another example might be noted in the case of recognizing the inadequacy of data for drawing final conclusions. Since the data on any problem are usually inadequate for an absolutely certain conclusion, it may be found that undue emphasis on that objective is turning out a group of individuals who refuse to make decisions. In such a case, those who do *not* attain the objective completely may deal more adequately with problems.

The second element, ethical and/or aesthetic values, has not yet been touched. People tend frequently to take the viewpoint that, where no right answer exists, one idea or opinion is as good as another, and it makes no difference how that opinion is arrived at. Ethical considerations involve placing a value on certain ways of arriving at judgments or decisions. It may be recognized that data on certain issues are so complex that many conclusions are equally plausible and that, failing the existence of a "right" conclusion, an individual still must take a stand. In such circumstances it is generally believed that it is *good* to examine the data objectively in arriving at a decision rather than simply a snap judgment. In effect, value is being placed on a certain process even though that process does not result in unique or "right" answers. Another ethical consideration is the demand that appropriate credit be given for ideas drawn from others even though such acknowledgment is not necessary to reach a conclusion.

Aesthetic considerations will also lead us to retain certain processes apart from the associated outcomes. A simple bar graph will convey the same information as a very elaborate graph in which the bars are replaced by drawings or figures related to the material portrayed. In part the reason for this is psychological, but in many cases it is simply an aesthetic demand for a more pleasing or attractive form of presentation. There is an aesthetic element in the diagramming of sentences or in the scanning of poetry which causes many teachers to continue teaching these skills—and some students enjoy them—even though there is much evidence that these skills have little or no

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relationship to major outcomes. In a biology course wherein drawings are required, a student who produces a sloppy drawing which nevertheless contains all the structures in correct relationship may be graded down. These illustrations indicate that aesthetic considerations are not ignored and there is no reason to believe that they should be. It would seem desirable, however, to be clear as to when a decision is being made on aesthetic rather than logical grounds.

After this very lengthy discussion of questions 12, 13, and 14, answers with respect to the objective "interpretation of data" have yet to be considered. It should be noted that the answers ought to be supplied in terms of actual data on individuals, not in terms of guesses. This involves a careful analysis of the actual thinking done by individuals in making the various judgments required in interpretation, and this analysis cannot be made merely by looking at the final response but must be made by interviewing or by requesting a detailed written record of what passes through the individual's mind.

The information necessary to answer the questions from this viewpoint is not at hand, but answers can be given to certain phases of these questions which will illustrate their purpose. Certain types of statements, such as those involving the purpose of collecting certain data or the effect of the data, are not deducible from the data themselves. It has been noted that some students who recognize rather consistently that they may not draw conclusions about such statements are not able to explain why, nor have they noted any relationship among such statements. The knowledge, recognition, and application of the principle that the purpose in the mind of one who collects data is not determinable from the data alone are demonstrated in various amounts by those who correctly answer such items. In some cases individuals with no grasp at all of the principle respond correctly on the basis of certain phases such as "in order to," or "for the purpose of." Having taken similar tests, they have been taught that statements containing these phrases should be responded to in a certain fashion.

A natural approach to testing the ability to interpret data calls

for judging the truth, probable truth, insufficient evidence for decision, falsity or probable falsity, of certain presented statements which purport to be interpretations. Some students do poorly because of reading disabilities rather than because of lack of interpretative skill. This particular difficulty is a common one in such tests. An occasional individual, too, seems to have great disparity between his quantitative and linguistic thinking skills. Out of entering classes of freshmen at Michigan State College numbering on an average of 3,000 students per class, between thirty and forty students will demonstrate extreme differences between their quantitative and their linguistic ability (A.C.E. Psychological Examination). Such an individual may be able to examine data and sense their meaning but have difficulty verbalizing about it. We need to keep in mind, then, that the poor performance in the test situation is not always indicative of inability in the actual situation.

15. *What are the specific classroom experiences—readings, demonstrations, discussions, activities, or lectures—which are thought to contribute to the growth of the individual with regard to the objective?*

Specific experiences related to the development of an objective in the classroom should be listed by the instructors, for these reasons:

a) It is frequently found that an objective considered to be important at the verbal level is actually ignored in the instructional program either by oversight or through inability to decide what to do about it. There is little point in trying to measure the growth of an ability or quality about which nothing will or can be done. However, measurement of growth toward a particular objective, where nothing explicit in the way of instruction has been done, will be very helpful as a control in determining the amount of increased growth due to programs where something explicit *is* done for the development of that particular objective.

b) Classroom practice relative to a given objective will aid materially in determining just what is meant by the verbal statement of the objective. If the two are not in complete accord, the disparity needs to be resolved by changing the avowed objective or by altering classroom practice.

c) Only as there is clarity on what has transpired in the classroom can the

significance of a response to a test or evaluation device be judged. There is a need for evaluation of growth in knowledge and in skills specifically worked upon in class, but it is necessary to distinguish those from situations in which an individual organizes his knowledge and skills in new ways to attack an unfamiliar or new problem.

With regard to interpretation of data, it may be found that often there have been data available in the textbook and assigned readings in great amounts but that the interpretation has been left entirely to the student. The teacher has assumed that handling data, like reading, should have been mastered before taking the course. Although gains in vocabulary, concepts, and principles would have some indirect effect on the ability to interpret data, the objective itself may have been largely ignored. Under such circumstances no great change in this ability is obtained nor can it be expected, and the immediate implication would be for a change in instruction with regard to this objective.

16. *Do the classroom experiences add measurably to the growth of the individual as compared with other individuals who have not had these particular experiences? If not, is this due to lack of, faulty, or inadequate classroom experiences, or is it simply that growth with regard to the objective is so slow and complex as to be hardly noticeable?*

The answer to this question is again one which calls for a study of actual growth of students. Students in classes in which definite practice is given in interpreting data show distinctly more growth in these skills between pre- and post-testing than do students in classes where nothing but verbal acceptance of the objective by the teacher is involved.

The latter part of this question concerning the measurability of growth is a particularly troublesome one at the college level where great emphasis had traditionally been placed on the course and the instructor, with the resultant expectation that a great deal results from that experience. A student who finishes college at twenty-two will have by that time lived 192,720 hours. A one-semester three-hour course may, if we are optimistic with regard to the length of the semester and the amount of out-of-

class study, utilize 162 hours of a student's time. This is less than one-tenth of 1 percent of his life up to completion of college, and less than one-half of 1 percent of his college life. From this simple calculation we may guess that, with regard to some important educational goals, the growth resulting from one particular course may be undetectable.

The answer to the question may then take several forms, as indeed was implied in the question. It may be that not enough experience has been given in the classroom to result in growth; it may be the best possible experience but result in only small measurable changes; or it may be that the work of that particular course is practically irrevelant to the objective. Evaluation of the growth of students relative to this objective, based on longer periods and related to various course patterns, will be essential for making a judgment as to the probable answer in a particular case.

17. *Do the analysis of the objective and the discussion of situations involving it suggest any additional activities which might be carried on in the classroom, or any different way of teaching? To what extent are the evaluation exercises also usable as learning devices or instructional techniques?*

The possibility of modifying classroom instruction as a result of evaluation-centered thinking and evaluation findings is perhaps the best justification for evaluation. The common fear that testing may determine teaching has had not a few examples which seem to justify it. Testing which is poor can, in some circumstances, encourage poor teaching. Testing which is good can and should modify instruction. The danger is that test performance may become the objective of instruction and, testing being limited in scope and usually synonymous with grading, the end result of this is certainly not education in its most desirable form.

The evaluation viewpoint assumes that desirable changes in students are the only justification for education and that instruction has no inherent value except as it induces those changes. To the extent that a broad evaluation program provides actual evidence on the growth of students relative to the agreed-upon

goals, the purpose of instruction is certainly that of producing good evaluation findings. Likewise, it is the main purpose of evaluation to produce information which will improve instruction.

The discussion of the objective, interpretation of data, in such fashion as has been indicated here in answer to the various questions would undoubtedly throw much light on teaching for this objective. The definition of the objective in terms of specifics gives tangible meaning to the general objective so that these particular skills can be pointed up in teaching. The distinction between facts given by the data and probable implications of the data suggests a rich field for exploration. Actual questions designed for evaluation as found in the P.E.A. Test 2.52, Interpretation of Data, are probably as good exercises for teaching interpretation of data as can be found.[2] Without such detailed specifications as were developed for that or a like test, it is unlikely that any teacher could very successfully teach toward the objective. Assignment of such exercises for answering in or out of class, followed by discussions of the responses, may be found even more valuable than the test results themselves.

18. *Do the clarification of the objective and the accumulation of evidence of growth with regard to it provide any basis for greater student motivation?*

In general, the answer to this question may be expected to be yes. Students, like everyone else, work harder and to better effect when they know rather definitely what is expected of them. In using test items calling for interpretation of data, a major student complaint has been that the classroom experience has not helped them understand and deal with these items. A common reaction of students is that the items are interesting and worth doing, but almost totally unfamiliar. Students who develop some knowledge of the various interpretation skills and are given opportunities to try themselves respond enthusiastically.

19. *What relations exist between growth with regard to this*

[2] A sample exercise from this test is given in Smith, Tyler, *et al.*, *op. cit.*, pp. 52-53. Complete copies of the test may be obtained from the Educational Testing Service, Princeton, N.J.

objective and such factors as (a) *intelligence,* (b) *status at beginning of course,* (c) *grading of the student?*

This question raises several issues related only in the sense that they involve consideration of some of the factors favorable or unfavorable to growth. In studying and evaluating higher mental processes, there is a continually recurring concern that intelligence is the only factor involved. Unquestionably intelligence, to the extent that it provides a limitation on the development of other mental abilities, is being and should be tested. With regard to testing the ability to interpret data, it has been found that correlations of these scores with intelligence are not particularly high and are of about the same order as the correlation of instructors' grades with intelligence. Thus it appears that the ability to interpret data is not simply a matter of intelligence. The fact that appropriate instruction and practice result in improvement also suggests that something beyond intelligence is involved.

Status at the beginning of a course must always be taken into consideration in considering the growth or change in an individual. Low standing at the beginning may make it impossible for an individual to profit from class work without special assistance. If the test or evaluation device has a ceiling not far above the initial performance of the best students, students who are lowest initially have the greatest opportunity for change. Greater gain by initially low than by initially high students may then be an actuality, or it may be an artifact of the evaluation technique. In a college class there is apt to be marked variation in the ability to interpret data. Some high schools pay considerable attention to this objective, others do not. Some students will have had considerable work in mathematics or even in statistics with emphasis on dealing with data. The few who have developed this ability may give us the erroneous impression that all either have or should have developed this ability.

The relationship between evaluation findings and grading has been touched on previously. The issue of whether or not certain types of evidence shall be used in determining a grade must be

faced and a clear-cut decision made and interpreted to the students. In dealing with the interpretation of data the instructor may concern himself with an individual's caution in regarding "true" as only "probably true," or in his tendency to go beyond the data and regard statements for which the data are inadequate as true or probably true. Caution is a desirable characteristic but should not be carried to an extreme since it is frequently necessary to go beyond the available data and make a decision. It hardly seems defensible to say that a student who shows no sign of caution or of going beyond the data should receive an "A," and that the one who does either extensively should be graded down. An individual has, at least within limits, the right to be intelligently cautious or rash if he so desires. It could be argued then that it is desirable both for the teacher and the student to know the latter's characteristics of caution or rashness and the changes which may take place in them, but that it is not desirable to grade the student on these particular characteristics. However, some aspects of the ability to interpret data may legitimately be used as bases for grades. In grading we have generally concerned ourselves with one of two concepts:

a) Fixed standards which the students must meet to receive certain grades.
b) A "normal" or arbitrary percentage distribution of grades which is applied to a score distribution or a ranking of students.

The first of these is difficult to carry out; the second is rather commonly practiced, although usually denied. Some compromise between the two is perhaps the most usual procedure. Either ordinarily involves measurement only at the end of a course, although the status of individuals at a given time or place is of less concern than their development over a period of time. The measurement of change does not mean that grades must be based on improvement alone, because an individual who starts at kindergarten level and improves to the level of high school seniors still is not functioning at the college level and does not deserve credit, despite marked improvement. Neither does he deserve failure. Such a student should be told that he has tremendously improved

but that he has not reached the level of performance expected of a college student with credit in this particular course.

20. *What is the optimum growth which may be expected for various kinds of students with regard to this objective?*

The question of optimum growth is not easy to answer and has hardly been touched in educational research. "Optimum" rather than "maximum" is used, because maximum would ignore the relationship of a given objective to other objectives. Considering all objectives, various teaching techniques, and course content and organization, what is the "best" gain that can be expected for a particular objective? With an accumulation of data on student growth one can begin to make judgments on this, although continual research will be necessary to validate or reject those judgments. Whatever the growth found by one approach, it is desirable to consider whether more might be obtained by some other.

In terms of evidence presently available it is not possible to provide any statement of the optimum growth to be expected with regard to interpreting data. Such statements can be made only in terms of some particular tests or evaluation instruments and then only in light of experience in using them with various teaching techniques and selections of material. There is a lack of commonly used tests in this field, a lack of data on the use of those available, and a lack of the repeated testing necessary for study of growth.

The discussion of these questions with respect to the objective of interpreting data has scarcely been typical of what might be expected in actual application of the questions. The obvious reason is that the objective has been used primarily as a means for entering into a discussion of the meaning and significance of the question, whereas it is intended that the questions be used as a means for clarifying the meaning and significance of objectives. The discussion also suffers from the fact that an attempt has been made to say something about all questions without actually having developed an evaluation device and then basing

the answers to the questions on the results obtained from use of the device. Quite properly one should obtain answers to the first fifteen questions before or during the process of building tests. Questions 16–20 can be answered only after some evidence from tests has been obtained.

The discussion has emphasized these points:

1. The specific kinds of interpretation and of data need to be determined before either teaching or evaluation is possible. For this purpose the objective is broken down into numerous subobjectives.
2. The objective needs also to be examined in terms of actual situations in which people can and do make interpretations of data. In doing this we see that the objective is not isolated from others but is, in fact, closely interwoven with knowledge, critical thinking, attitudes, interests, and other objectives.

Any objective requires that, for full understanding and realistic teaching and evaluation, we develop it in two directions: first, listing the specific elements involved; second, examining them in relation to other objectives involved in the actual functioning of the individual. Since the individual does not separate his knowledge, mental skills, interests, attitudes, etc., in dealing with a problem, we can expect to find that any objective is ultimately related to all others. If we start from the objective "knowledge of facts," there is no great difficulty in measuring knowledge, but we may have more difficulty in stating the specific situations, problems, or experiences which confront individuals and wherein this knowledge is usable. Whether the knowledge is meaningful, whether it is actually related by the students to situations or problems to which it is applicable, whether it is necessary, are questions which immediately relate knowledge to other aspects of behavior. Unless one endorses the idea of knowledge for knowledge's sake or is ready to assume—what has frequently been found false—that an individual will use what he knows, there is little doubt that such questions throw some light on the significance of the factual knowledge so heavily emphasized in our courses.

The questions and the discussion have apparently been aimed at evaluation of the growth of the individual and may not seem

applicable to evaluation of a course or of a program. However, an adequate evaluation of a course or program must be based primarily on evaluation of the changes brought about in individuals by their experiences in the course or program. Naturally these changes should be in the direction of the objectives stated for the courses. From this viewpoint, then, it may be claimed that the approach to evaluation implied by these questions is necessary not only for study of individuals but for study of courses and programs. No special merit is asserted for this particular set of questions, but the approach is fundamental. Evaluation on this basis is not easy, but it must be undertaken unless we are to rely on individual and heavily biased judgments of the value of a course, based on inadequate evidence or no evidence at all.

Training the College Librarian for a Career in Higher Education

By NATHANIEL STEWART

A CRITIQUE of the professional training of the college librarian is most appropriate in this day of new frontiers in higher education. The critique may be summarized quite briefly: the courses stress the structural, rather than the functional, aspects of college librarianship; there is an overwhelming interest in the *externa* rather than the *interna* of higher education; there is an incredible time lag between what is known of higher learning and what is put into practice in college libraries; and the principal guideposts for the potential college librarian have been regulatory, rather than educational. Reconstruction in the training of college librarians in the professional school would mean, apparently, an attack on several fronts. Preservice and postgraduate aspects of such training may well be the subjects of another paper. The principal target here, at least, is the traditional course on college and university libraries offered in library schools.

The central theme of this paper contends that within the past two decades there has been very little change in the professional training of the prospective college librarian. And it contends that the principal deficiency is its lack of treatment of the very underpinning of higher education—*purposes, design, and changes in higher education,* and their impact upon library service in colleges. From Randall's initial work on college librarianship,[1] published two decades ago, to this very day, there persists a stereotyped course which deprives librarians-in-training of this important underpinning. The stereotype consists of this traditional sequence of topics: origins of the college library, government of the library, administrative organization, personnel, the collection of books and other resources (often based on thor-

[1] William M. Randall, *The College Library* (Chicago: Joint publication of American Library Association and University of Chicago Press, 1931).

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oughly outdated selection guides), selected services to faculty and students, buildings and equipment, and the preparation of reports and statistics.

Lyle [2] introduces in his volume several new topics relating to techniques for encouraging reading, some aspects of the teaching service of the college library, and evaluation of college library service. It lacks substantiation in terms of more recent research and principles of service in higher education. More recently, Swank's portrayal of the potential of audio-visual service in the college library [3] is most welcome. Finally, B. Lamar Johnson continues to illuminate us with the unusual work of the library at Stephens College.[4] Unfortunately, these latter contributions appear to have had little impact upon the formal course in college libraries in the professional library school—they are relegated to the status of "readings" in the course. Occasionally, there is a voice from outside the field of librarianship, such as in the contribution of Reeves and Russell in 1931 [5] and the Forty-second Yearbook of the N.S.S.E.[6] These have been all too infrequent, and the latter study, for example, is limited largely to school libraries. Such is the paucity of literature in the field.

To be sure, one will find repeated references to "the library and the objectives of the institution." There is little evidence in the program of the professional library school, however, that it goes beyond mere declaration. It lacks depth, timeliness, integrity. The course of instruction is such that the college library seems to bear closer kinship to the discipline of librarianship than to higher education. The absence of discussion of the

[2] Guy R. Lyle, *College Library Administration* (New York: H. W. Wilson Co., 1945).

[3] Raynard Swank, "University of Oregon's Audio-Visual Service," *College and Research Libraries,* IX (October 1948), 299-307.

[4] B. Lamar Johnson and Eloise Lindstrom, *Librarian and Teacher in General Education: Report of Library-Instructional Activities at Stephens College* (Chicago: American Library Association, 1948).

[5] Floyd W. Reeves and John Dale Russell, "The Relation of the College Library to Recent Movements in Higher Education," *Library Quarterly,* I (January 1931), 57–66.

[6] Louis R. Wilson, *The Library in General Education* (Forty-second Yearbook of the National Society for the Study of Education, Part 2 [Chicago: University of Chicago Press, 1943]).

report of the President's Commission on Higher Education, or of the field of general education, or of the community college, for example, testifies to this defect. The inference could be drawn that the absence of such concern is due to the lack of sensitivity and responsiveness on the part of college librarians. Behind this inference is the more acute observation that, because the library school course stresses administration and slights purposes and design in higher education, many college librarians are not equipped to respond to educational movements. Once on the job, they tend to become immersed in the minutiae of budgets, publishers' catalogues, student assistant assignments, and numerous other matters. It becomes a conditioning difficult to overcome and one which retards the librarian's participation in higher education. University librarians, as distinguished from college librarians, have fared better—as evidenced in the excellent educational work of Ellsworth, Boyd, and others. Again, it is contended that most college librarians are not well grounded in purposes, design, and change in higher education. The course of instruction does not produce the kind of imaginativeness required of the college librarian today.

Now we find a mushrooming of "new" and "changed" curriculums and courses in the professional library schools. In his presentation before the 1948 Conference of Eastern College Librarians, Tauber cites sixteen library schools which offer one or more courses in college and university librarianship.[7] Of these, only two are suggestive, at least, of the kind of course for which a plea is made in this paper: the Graduate Library School of the University of Chicago which offers "a critical review of the relationship between the academic library and problems of modern higher education," and the Syracuse University School of Library Science which describes its course as Library Service in Higher Education. A more scientific effort, of course, would require close examination of the course outlines, syllabuses, visiting lecturers, work units, etc., of the above-named and other

[7] Maurice F. Tauber, "A Précis of the New Library School Curricula," address before the Conference of Eastern College Librarians, 1948, Columbia University, 1948.

library schools. However, Tauber's task was that of a reporter—primarily, to report evidences of current programs in library schools offering courses in college and university librarianship. Implications as to the *kind* or *quality* of course in college librarianship, its stress and design, are those of the writer of this paper.

Traditionalism breeds passiveness, and the college librarian has been content to follow or to be persuaded to follow. Too often is it implied that he leans on the faculty library committee as a crutch for support. Reconstruction in higher education demands a more active role—a role in which the college librarian works *with,* rather than from, educational officers struggling with the problems of higher education in a complex world. The college librarian is taught the rudiments of preparing a budget and allocating expenditures. How sensitive is he, however, to the financial plight which threatens the small college today and to some of the constructive measures suggested by Dr. Algo Henderson at the recent meeting of the American Council on Education? The college librarian is instructed to serve in routine fashion the "instructional" program of the institution and takes an indifferent position with respect to the ill-prepared college teacher. What does he know of the significant fight going on with respect to improved preparation and practices of the college instructor, as currently advanced by Carman, McGrath, Tead, and others? One could continue with equally provocative questions relating to accreditation, standards, changes in instructional techniques, faculty in-service growth, and other issues in higher education.

This is a long overture, indeed, to the basic recommendation offered in this paper. For reconstruction of the traditional course in college librarianship offered in professional library schools, there is recommended the outline which follows, in its fullness or in some acceptable modified form. The method of instruction is not discussed, for that may well be within the domain of the library school instructor. Here, too, there is room for imaginativeness in stimulating a career in higher education.

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PROPOSED OUTLINE FOR COURSE IN COLLEGE LIBRARIANSHIP

Backgrounds

1. Origins and characteristics of the early American college library
2. Classicism and its influence upon college curriculums and libraries
3. Rise of the universities, graduate study, women's education—and effects upon development of college libraries
4. Emergence of the elective system—implications for college library
5. Contemporary issues in higher education, and their meaning with respect to college librarianship:
   a) Election versus prescription
   b) Generalism versus specialism
   c) The "academic man" versus vocational preparation
   d) The dilemma of multiple purposes and objectives
   e) Speculations based on postwar surveys of higher education
   f) Concern with human relations movements and college life
   g) Mass media of communication and the college student
   h) Trends in intercollege cooperation
   i) Government and education

Educational design of the four-year liberal arts college

1. Its purposes
2. Its curriculum
3. Its instructional methods
4. Its potential for general reading among students
5. Its potential for research
6. Its campus life: journalism, music, religion, societies, etc.
7. Its other educational activities: guidance, testing, surveys, community relations, visiting lecturers, alumni follow-up, etc.

NOTE: Implications of the above for the college library in terms of:

A. Book collection and other resources—general
B. Book collection and other resources—specific fields
C. Services—general
D. Services—of special character
E. Library-faculty-student liaison
F. New resources (audio-visual) and total program

The general education movement in higher education

1. Backgrounds of the movement
2. Influence of the Harvard report, McGrath and the *Journal of General Education,* the American Council on Education, etc.
3. Variations of patterns of general education (six basic patterns)
4. The issues at stake

NOTE: Importance of the college librarian's alertness and responsiveness to influences, nationally and locally

Efforts at individualized instruction

1. Tutorial and preceptorial plan
2. Honors and independent study plans
3. Extended periods of "free" reading
4. Individual conferences, discussion, and seminar
5. Field activities
6. Student interests and needs as springboard
7. Humanizing preprofessional training of engineers, physicians, and others

NOTE: Same as *A–F* under "Educational design. . . ."

Trends in in-service education on the college campus

Clinics, workshops, laboratory studies, institutes, conferences, meetings of professional groups

NOTE: Same as *A–F* under "Educational design. . . ."

Some special problems in other areas

1. The traditional junior college and the newer four-year junior college
2. The "community college"
3. Teachers colleges and schools of education
4. Nondegree offerings in general studies and extension programs

NOTE: Same as *A–F* under "Educational design. . . ."

The college library evaluates its work

1. Testing its ability to meet the primary and auxiliary objectives of the college it serves
2. Experimentalism in collection of resources and services
3. Traditional methods of evaluation
4. Newer techniques of evaluation

From this may emerge the distinction between training for a job as college librarian and training for a career in higher education. Happily, there are some librarians who have attained both, to be sure. They are too few in number. A decade of training under the pattern suggested, plus strategic and well-directed in-service training, may yield a larger harvest. A sustained interest in and contribution to the larger domain of higher education is not incompatible with the administrative responsibilities for managing the college library. It is not going afield; indeed, it is going *in* the field. A combination of this know-why (of higher education) and know-how (of technical librarianship) will reflect credit upon the total product.

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Observations on Education in British West Africa

By HORACE MANN BOND

DURING THE SEVENTH WEEK of a hurried tour of West Africa in the fall of 1949, I fell into a conversation with an English civil servant. We talked about books on Africa. "Ah," he said, "you have now been here a week too long. Had you remained only six weeks, you could have written a book about your visit; for books about Africa are written only by those who remain here for six weeks—or for thirty years."

I gave him my solemn promise that I would not write a book; this essay is only a partial "welsh" on that promise; it sets forth my observations only, and is, therefore, more about me than about Africa.

I

Every observer brings special spectacles that aid or obstruct his view, and he is under obligations to declare what they are. To Africa I carried lenses, some usual, some unique. I had had some study of African culture, economics, politics; twenty-five years of experience in American educational institutions; and a lifetime spent as an American of African descent, more commonly identified as an "American Negro."

This last was my most special lens; to illustrate how it affected my observations, I am positive that I saw my grandmother in a British Wesleyan Church in Accra, in the Gold Coast. The dear old tyrant, born a Kentucky slave in 1832, has been dead these thirty years; but there she sat, complete in every detail; her wrinkles, her color, her kerchief—even her flowing gown was a dead ringer for the Mother Hubbards Granny affected as her Sunday-go-to-church-meeting dress.

To see Granny sitting there was an exercise in the observation of the profound effect of education as a social institution. I had been conducted to a seat in the right transept, where sat the

Anglicized Africans; my Palm Beach suit rated me as literate in English, although a stranger. Granny's African dress placed her with the women in the central aisle of the nave; her place on a frontward bench signified that she was literate in the local idiom, the Ga language, but not in English. In another aisle sat the men in like circumstances; and behind, to the very door of the large windowless (and Gothic!) edifice, sat row on row of women and men, nicely graded in their discrete aisles and pews on the basis of Europeanization and literacy.

My Anglicized guides were not a little dismayed when, after the services, I insisted on deserting my social class to get close enough to Granny to touch her hand. Their dismay, and my romanticism, and the reasons for the stubborn persistence of a transplanted caste and class system from an alien "homeland" to this wholly African church, may help describe the peculiar lenses that educational institutions fit for men, be they formal or informal, familial, racial, national, or international.

II

Wherever I went in West Africa, I was the honored guest of Africans. I discovered that almost all Africans are nationalists; that is, they want self-government and independence, and differences between them on this score lie only in degrees of time and particular self-interests. My hosts were among the ultra-nationalists.

Lincoln University was founded in Pennsylvania in 1854 to provide training for Americans of African descent and for Africans who would, it was devoutly hoped, evangelize and succour the Dark Continent. I discovered that our little university enjoys a most dubious reputation in government and mission circles in West Africa; and, by contrast, a corresponding high regard in the hearts of the Africans. We have teachers, physicians, scientists, and college presidents among our many African alumni; but these worthies are not the reason for our mixed public. Our university is principally known because we graduated Kwama N'Krumah, the extreme nationalist leader in the

Gold Coast; and Nnamdi Azikiwe, of Nigeria. Azikiwe operates a chain of a dozen newspapers in West Africa, and is without doubt the most influential African now alive.

My special hosts in Nigeria were *Mazi* Ozuomba Mbadiwe, the president of the African Academy of Arts and Research, and *Mazi* Mbonu Ojike. *Mazi* Mbadiwe is a former student of Lincoln University; and so is *Mazi* Ojike, associated with Mbadiwe in the academy and with Azikiwe in business. Ojike's books have been widely read in the United States; he holds a bachelor's degree from Ohio State, and an M.A. from the University of Chicago. He it was who has pressed the Africans to substitute the African word "Mazi" for "Mister"; and the Africanized title helps tell the story of African nationalism.

I was received most pleasantly by government officials, by missionaries, and by other Europeans. (My African friends never said "white people.") Indeed, it was my observation that the Europeans attached little point to my claim of African descent and accepted me freely as one of their own, as is the custom of the country among persons of similar educational background and social class. The Africans accepted me as a son of Mother Africa, returning to visit his homeland at the invitation, and in the care, of his long-lost brethren across the ocean.

The tie of American education exercised, also, a profound influence on my observations. Americans at home cannot begin to appreciate the tremendous prestige America enjoys everywhere abroad, and especially in the so-called "backward" colonial areas of the world. The heart of Europeans, and even Asiatics, may have been corrupted by disillusionment—or by communism; not so the heart of Africans. And my American-trained hosts made reunion with me with all the nostalgic joy in things American, remembered, five thousand miles from their truly cultural foster mother, that would have characterized a meeting thus afar of Elks or Moose or Alphas or Dekes or Rotarians or Princetonians or Yalemen. (Americans might be advised: when they have given shelter and an education to an African, they have made an American booster for life.)

III

So equipped, what other education did I observe?

Principally, I observed two great universities in the making, although the time available to see them occupied only the smallest fraction of my too-brief tour. Near Accra in the Gold Coast, at the old site of the Achimota College, a university college is already in operation, and a great new plant is under construction.

The people who describe the plans to you are very casual; perhaps it is British to be so. The prospectus of this new university, established to nourish black scholars who, within our generation, will comprise its principal staff, must prove exciting to any American. In the United States we take a deep satisfaction when it is announced that Howard University, the "capstone of Negro education," has just been voted three million dollars to develop its plant; or that the Tennessee A. and I. College is engaged on a six-million-dollar building program, that it may become "equal to the State University for white persons in every respect."

At Achimota you hear a casual reference to the three million earmarked by the Cocoa Marketing Board for the new university; and that is exciting enough, for three million is a lot of money.

Then you are reminded: they are talking in *pounds,* not *dollars;* and, even with devaluation, this is an exciting figure, comparable to the current building programs of great American universities—Cornell's twelve million, Duke's twelve million, Brown's ten million.

And this is only a beginning.

At Ibadan, in Nigeria, the plant prospectus is even more astonishing to an American whose culture has but grudgingly and most recently abandoned a profound conviction of the native incapacity of the *Afro*-American intellect!

Viewed through any lenses, the blueprints for the new one-and-one-half million (*pounds,* not dollars) air-conditioned library, to house two million volumes, are calculated to make American eyes pop, or, more properly, protrude. The site is a

clearing of jungle bush on a high hill overlooking a sprawling black city of 750,000. The city is the thousand-year-old capital of the Yoruba people. Already in a temporary building is the magnificent collection of works on Africa donated to the university by the late Henry Carr, African bibliophile. The Carr collection exceeds in breadth and rarity anything of its kind in the United States; and in one of the rare, old volumes you may read the story of how the Yoruba in the twelfth century threw back the Mohammedans from the gates of Ibadan, as Charles Martel had done at Tours four centuries before. It is a measure of our American ignorance that we know everything about Charles Martel, but nothing about the black princes who saved the African coast from the selfsame scourge.

From the hill one can look down into the Nupé quarter, where may be observed men and women artlessly strolling through avenues of mud-walled, windowless huts, in a nudity approaching, and sometimes exceeding, that characteristic of the more fashionable Florida beach resorts. In the old days the Nupé were a helot tribe, not allowed within the city walls by the lordly Yoruba. But now Yoruba and Nupé, Ibibio and Ibo and Efik and Hausa alike may turn their eyes upward to the eminence where a great African cradle for black scholarship is being erected. Not since Timbuktu's sixteenth-century Moslem university has this been true anywhere else in the world.

IV

The faculties are perhaps the most cosmopolitan groups of scholars to be found in any university communities in the world. Their high attainments are creditable to the emerging universities they represent and to the chief educational officers responsible for their recruitment. The story is current that Dr. Kenneth Mellanby, at Ibadan, sought help in filling a vacancy from the Examining Board in England that is responsible for recommending scholars for posts in universities throughout the Commonwealth. He ended by persuading the most brilliant member of the Examining Board to take the vacant position! This is in the irresistible tradition of faculty-building of the redoubtable

William Rainey Harper himself. Both Balme, at Achimota, and Mellanby have already succeeded prodigiously in emulating their Chicago prototype. though remaining quite in the somewhat less ebullient British character.

The Africans already on the staffs are a particular delight and inspiration. They share with their African fellows of distinction—be they supreme court justices trained at Oxford and Cambridge, or illiterate subchiefs in a jungle village—an immense personal assurance and a calm dignity particularly noticeable to one fresh from our frenzied American scene. A young scholar at Ibadan, a specialist in the psychology of culture, hinted the reason. "We Africans," he said, "have perhaps one advantage over the American Negro and Americans and Europeans generally of this generation. We are a people who have grown up in a secure and homogeneous culture, not yet shattered to fragments by the effects on human personality of technology and modern warfare. Our culture is different; and, for this generation at least, I think we shall exhibit to the world less fragmentation of the human personality."

V

Familiar as I thought myself to be with the current interests of university youth in social causes, I found myself in no position to cope with the far-ranging and searching inquisitions of the students I met at these university colleges. They plagued me with questions frank to the point of frequent embarrassment. What could I say for America in a public meeting when asked about the lynching of my fellows of African descent? Or about the well-known differentials in school expenditures throughout the southern United States? Or about segregation on public carriers? Or the meaning of the riots following Paul Robeson's Peekskill appearance? Or the propriety of President Stassen's participation in politics while the head of a great university? It is a poor American, I think, who, in a foreign land, runs down his country's reputation; and yet there are certain obligations to the truth.

I could afford as little comment to questions involving the

British Commonwealth, though for another reason: The racial policy of the Malan Government in South Africa? The lukewarm, if not hostile, attitude of the United States and Britain toward Indonesian independence? The long-time British policy to develop Africa as an agricultural, raw-materials source to supply European needs and to provide a market for western European factories? The relative merits of American and British education? Selective or mass enrollments in higher educational institutions, as advisable for West Africa?

However wary my answers, the questions left me with the impression that these students were tremendously alive and interested in their own world and in all worlds. They exhibited a feverish industry, unbelievable in the typical American student of any race.

Qualitative comparisons are difficult. The typical African at our college and university level has already performed one prodigy of learning; for he is working in English, to him a foreign language. This simple but tremendously important fact may elude the attention of our provincial mind-set that assumes that everyone speaks English as a natural birthright. Usually the shift from the vernacular language, as the vehicle of instruction, occurs in the fourth year of schooling.

From my own experience in America with African students from British colonies, I would judge that any candidate presenting an acceptable "pass" in either the London Matriculation, or the Senior Cambridge examination, would easily rank in the top 25 percent of sophomore students in the best American colleges. The differences in curriculum between the British and American secondary school must be considered. The African student—British-wise—has been exposed to a narrower range of studies; he is likely to be deficient in the natural sciences, and there is no analogue in his background for our "social studies." His excellent habits of study and his prodigious ambition may be depended upon to compensate for any blind spots in preparation due to curricular difference, if he is given the opportunity to catch up in these blank areas.

American college administrators occasionally express dissatis-

faction with the preparation and achievement of African students. My own feeling is that the blame for these complaints lies with the American institution. Frequently sentimental considerations and a vast ignorance of the British system lead many American institutions to admit Africans totally unqualified to do successful college or university work by any standards, be they British or American. Americans need to remember (1) a large number of the highly qualified African students have been absorbed by British universities, and will be, increasingly, in the future by the new universities at home; (2) in considering the applications of Africans for study in America, one deals with a highly selective educational ladder, as compared to our own system of education on the secondary-school level.

To Americans, Africa is one vague unity; in actuality, it is an immense land area, with tremendous differences even within British colonies as to the length of the period and extent of European educational influences. Nigeria and the Gold Coast have a much longer history of African political organization and advancement of culture than anywhere else in Black Africa. On this old indigenous foundation European elementary and secondary education has had a longer, stronger effect. Each African applicant needs to be judged on his own merits and on the merits of the educational preparation his credentials show. The British examination system measures quality in a way different from our system of academic grades; but quality it does measure. There are probably thousands of young Africans currently carrying on an eloquent correspondence with American institutions; the laudable and sentimental desire to assist these hopefuls needs to be supplemented with a short course in the meaning of European educational standards of attainment in terms of American education.[1]

[1] For specific information, I commend the Committee on African Students in North America (CASNA), Mr. Emory Ross, secretary, with offices at 101 Park Avenue, New York. Dr. Channing H. Tobias is an adviser. CASNA cooperates with missionary and colonial authorities in adjusting African students to American educational institutions. As in every other area, this cooperation makes CASNA suspect in many African circles. Some Africans point out that no colonial government is anxious to have African students study in America, since the people, like the resources, are regarded as a reserve for a particular colonial power. The only

VI

The visitor will ask himself: why build a two-million-volume library in a country of thirty-five million people, when not 10 percent of that vast population is literate?

It is being done for many reasons. Chief perhaps is the British faith in public administration by a university-trained civil service. The present government policy (we speak of British West Africa only) envisages eventual administration by Africans, although within the framework of the British Commonwealth; the quarrel with the nationalists is over the rate of "Africanization" and the issue of complete independence. The university colleges—and future universities—are planned to provide at home the training for which so many now go to England and America. The long-time plan begins the building at the very top.

There are lusty beginnings at the bottom; but not yet has government struck a comprehensive blow at what is an almost frightening task. Elementary and secondary schools, for the most part, are enterprises administered by missionary societies, although supported principally by government subsidies, both for plant and current expenditures. Schools established by Africans, supported by tuition fees, and without benefit of government subsidy, are being created in great profusion. Many of these schools are communal affairs, very similar to early American beginnings; the way in which entire communities contribute land and labor for construction reminded me of the Rosenwald school-building program in the rural South of three decades ago.

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thing American that is desired is capital, without strings, to aid in the exploitation of human and material resources. The Africans, of course, are right.

There are many African agencies active in promoting the cause of African students in the United States. Among these should be listed the African Academy of Arts and Research, headed by K. Ozuomba Mbadiwe, American-trained Nigerian. The organization has headquarters at 15, Montgomery Road, Yaba, Nigeria. Mbadiwe is respected by Africans, and students recommended by his organization are, from our experience at Lincoln University, of first-rate ability.

With no opportunity to observe, I have the impression that in the vast French areas concern for African education is principally to prepare males for military service; in Belgian areas, to prepare a skilled working class to assist in economic exploitation of natural resources; in Portuguese Africa, no concern at all. British East Africa and the Crown Protectorates such as Rhodesia likewise differ; my distant impressions of South African policy under the Malan government are extremely dubious and cannot be printed here.

Many Africans nurse a bitter resentment at government refusal to subsidize African-established and African-controlled schools. The government says that its subsidies are reserved for standard-type institutions and will go to the African schools when they qualify. This historic policy throws the mission enterprises and the government into a close, and apparently a congenial, alliance. An observer might wish that the missionaries in West Africa, and elsewhere in the world, had independence of action and thought in relation to the colonizing powers. Certainly the prestige of Christianity and of Christian missions suffers from the identification of the religious with the colonial administration. If the missions were in a position to speak out against the exploitation that has taken place, and undoubtedly still goes on, the fears of communist infiltration expressed now by missionary and government circles would have less justification.

"If wishes were horses. . . ." But they are not. Whatever might have been, I came away from West Africa with a profound respect for the work done by missionaries and by the exemplification of the Christian ethic and of the Western culture. And this with all of its faults, and the faults of individual missionaries. What better has the West to show? Scarcely our technology or our corporations, certainly not the atom bomb.

The Catholic sisters I saw teaching little African girls with loving care, in so many of the mission schools in Nigeria, brought to my mind the Calvinistic schoolmarms from New England who taught me in my youth in mission schools in the southern United States. Perhaps neither would find the grouping satisfying. I can only say that for sheer devotion, and sacrifice, and effectiveness, these gently bred women, living in an alien and difficult clime, took their place in my heart along with the beloved teachers of my own Protestant youth.

Fifty years ago a group of Jamaican Negroes were sent to Nigeria as missionaries, under the Anglican and Presbyterian boards. The several survivors I met led me to conclude that it is neither race nor creed, but the power of a great religious ethic above race or creed that makes the world tolerable and could

make it better than tolerable. These people, likewise, are in my calendar of saintly souls.

What the missionaries, past and present, have done is the slow tending of a spark that now, under the full impact of Western civilization, has been fanned into a flame in the minds of the people. The African is positively mad to learn. A Catholic sister told me that fifteen years ago her order was obliged to bribe girls to come to school; since the war they cannot possibly enroll the thousands who press to enter. Perhaps the most striking observation any visitor to the schools, on whatever level, may make is of the avidity, the passion even, with which the learning process is pursued. There is no precedent for it: not, at least, in the history of missionary work among the Polynesians, or in South Asia, or with our own American Indians.

Africa has much to learn from the West. There are techniques and virtues; also, there are vices. In Accra and Lagos, in Ibadan and Port Harcourt, the courts are increasingly overrun by juvenile offenders. The petty thievery and general unreliability of the newly schooled masses are proverbial among the Europeans, and are the cause of gloomy regrets that any education was ever undertaken. "Educate an African and you ruin him!"

(How many times had I not heard that in the American South—substitute only one word, but the same tone and the same head-shaking!) An American woman warned me not to leave any articles unlocked; I protested that I had done so throughout my tour, and nothing had been taken. "Ah," she said, "but you are a privileged character!" At least, then, it appears that the people are selective in choosing the victims of their lack of character.

VII

Now this is something of what I observed—from my grandmother in the church at Accra, to the learned white and black professors at the universities; from the stately black supreme court justices, trained at Oxford and Cambridge, to the marvelous Nigerian dancers who welcomed me to every town. The

judges wore wigs and ermine, and the dancers, headdresses simulating the skulls of enemies slain. I observed them, and I found them all wondrously good to look upon.

I observed government officials, missionaries, and the radical African nationalists who were my hosts. Whatever they thought about each other, I looked upon them and found them all good to see. I observed budding universities, schoolboys wearing Eton caps and football blazers, and the naked children who deserted the fascination of a tire-repair, one day on a dusty road, to engage in a heated argument (in the Yoruba language) over the correct solution to an arithmetic problem.

I observed Catholic, Southern Baptist, Scottish Presbyterian, Anglican, Seventh Day Adventist, Lutheran, Methodist, and Assembly of God mission schools.

I observed witch doctors cheek by jowl with trained physicians from Edinburgh. I broke bread with Moslem imans, Protestant preachers, Catholic priests; once I exchanged ceremonial kola nuts with a pagan *ju ju* man at the dedication of a new African college—he in a grass skirt, I robed in cap and gown.

All of the observations permitted by these experiences were cheering and inspiring. For I observed through my special spectacles—my special lens of a deep affection held by an American of African descent for his long-lost brethren across the wide waters, and by them gratefully and graciously reciprocated.

So observing, I saw that these were wonderful human beings, as indeed all human beings may be seen to be if properly viewed. The world already is the richer for their being; and it will, I think, be immensely more enriched when the education now in process and that yet to come has had its fuller effect upon their agile minds, their beautiful bodies, and their loving and immortal souls.

Africa is a black pendant suspended between East and West—between two ideological worlds in mortal conflict. What America does or does not do in forwarding the education of Africans may decide the future of the world.

Higher Education in Postwar Austria

By DAVID KOPEL

THIRTEEN SCHOOLS of collegiate grade comprise the institutional framework of higher education in postwar Austria. Foremost among them is one of the oldest and most famous universities in the world, the Universität Wien, founded in 1365. Two other venerable but smaller universities are located in Graz and Innsbruck, the provincial capitals of Styria and the Tyrol, respectively. The remaining institutions are specialized colleges, called *Hochschulen* and *Akademien;* seven of these are in Vienna, three in the provinces.

At the University of Vienna a traditionally comprehensive program of studies is offered in the humanities and sciences.[1] Professional curriculums are also provided in medicine, dentistry, pharmacy, law, and theology. Similar scope is present in the course of studies at the Universities of Graz and Innsbruck.

By contrast, the colleges are devoted to relatively narrow areas of research and professional training. However, considerable diversification and specialization occur even within these institutions. For example, the College of Agriculture (Hochschule für Bodenkultur Wien) contains departments of forestry, fisheries, and dairy farming, as well as of experimental agriculture and husbandry. At the two technical colleges, in Vienna and Graz, the areas of specialization are civil and mechanical engineering, architecture, and chemistry. In addition, the Vienna school has a department of applied mathematics and physics.

Separate colleges train mining engineers at Leoben and veterinarians at Vienna. There is also a Catholic theological seminary at Salzburg and a college of commerce, interested primarily in international trade, at Vienna. The various arts are taught at the Academy of Fine Arts, the Academy of Music

[1] Detailed information relating to curriculums and other facilities, fees, matriculation, degrees granted, etc., may be found in M. M. Chambers (ed.), *Universities of the World outside U.S.A.* (Washington: American Council on Education, 1950).

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and Dramatic Art, and the Academy of Applied Art,[2] all appropriately located in Austria's great cultural center, Vienna.

Immediately after the cessation of hostilities all institutions of higher education resumed operations, continuing the curriculums and courses of study in effect before the war insofar as available facilities and personnel permitted. No basic changes have been made in the character of these programs. A minor and desirable innovation was made by the University of Vienna in opening certain technical and professional courses to experienced technicians and other specialist workers not possessing the *Matura* or *Mittelschule* diploma, who wish to pursue studies in their fields. Another innovation at the International Institute of the same university in 1946 was the introduction of courses conducted in English and French, for the benefit of occupation personnel. Under the terms of a special bequest the University of Vienna reopened a school offering a four-year course in the art and science of beer-brewing; this school had been a private venture, and its closing in 1920 enabled Germany to develop a unique monopoly in this field. Of more importance, probably, all three Austrian universities have established institutes for the training of interpreters, for whom there is a growing demand in the modern international world.

Many slight modifications also were made in 1946, 1947, and 1948 in various curriculums and examination procedures. There was a growing recognition, too, of the need for developing a general education program to promote democratic citizenship not only among the present student body but also among adult

[2] This institution (Akademie für angewandte Künst Wien) is the only one of those mentioned in the section above which does not have the status of a "college of university rank," although it enjoyed this distinction under the Nazis between 1941 and 1945. Nevertheless, statistics on higher education furnished by the Austrian Ministry of Education continue to include this institution, and it is, therefore, cited in the present report. It should be noted that this article is confined to the thirteen institutions which comprise higher education as defined by the ministry. Excluded, therefore, are several schools, such as the Pädagogisches Institut Wien, which also possessed university rank under the Nazis, and which provides noteworthy in-service training for elementary school teachers, in the fashion of many of our university colleges of education. Nor is consideration given here to the many *Volkshochschulen,* or people's colleges, which offer a comprehensive array of noncredit courses and activities, many of which are unquestionably at the "college level."

population groups not served at present by the universities. The substantial improvement in economic conditions in 1948 made it possible for the Universities of Vienna and Innsbruck to plan summer sessions in 1949 which foreign students were invited to attend. Similar programs for the summer of 1950 have been announced.

Control

Shortly after the Soviet Army entered Vienna in April 1945, it accepted the provisional Renner government and, with the subsequent concurrence of the other Allies, permitted it to take over the administration of educational institutions, including colleges and universities. The immediate aim of the authorities was to eradicate Nazi ideas, practices, and personnel; this objective was embodied in a federal decree dated May 28, 1945, voiding all university regulations which had been issued by the Germans. As a basis for reorganization it was decided to revalidate the general orientation, constitution, and rules in effect on March 13, 1938. Another law to this effect was passed in September 1945.

The Renner government, located in Vienna, and subject to the first efforts at quadripartite control by the occupying powers, was able to exercise little authority outside the capitol. The Universities of Graz and Innsbruck and the three other provincial colleges came under the control of the separate British, French, and American occupation authorities.[3] For this reason uniform policies relating to higher institutions were not achieved until after the national elections of November 1946, which led to the establishment of a recognized and stable central government. In 1946 and 1947 the government, through its Ministry of Education, gradually reasserted its power over the colleges and universities. Important contributions to this achievement were made by the Allied Control Agreement of June 1946, which set very narrow limits on the power of the Allies to interfere in the universities, and by the anti-National Socialist law of 1947, which

[3] There are no colleges or universities in the Soviet zone of Austria (outside Vienna).

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provided a general solution and almost complete liquidation of the denazification problem. By the end of 1947 the ministry had consolidated its position and was exercising authority much as it did in pre-*Anschluss* Austria.

The ministry's centralized control of colleges and universities is expressed through its authority to promulgate their constitutions as well as those of the student associations. The ministry does not formulate collegiate courses of study, but it influences their content by determining the requirements for degrees. Through its financial control of budgets the ministry also regulates the scope and character of each institution's program; and through its veto power over faculty appointments and the elections of rectors and deans, the ministry has a voice in settling personnel policies.

Despite these comprehensive controls which lend themselves so readily to autocracy, certain salutary features are nevertheless present. Indeed, in some respects Austrian institutions of higher education are more democratically governed than are those in the United States, in which the president or chancellor, appointed for indefinite tenure, frequently has the power to inhibit the academic freedom of professors whose philosophies and utterances are not subscribed to by influential individuals upon whom the institutions rely for financial support. In Austrian institutions the *Rektor* (chancellor) is elected annually by the various faculties. He receives no $20,000 or $25,000 salary, as is fairly common in the United States, but is given a small stipend in addition to his regular salary as professor. Only an outstanding scholar, as a rule, attains the honor of this selection, and it is prestige—he usually bears the impressive title of "His Magnificence"—rather than financial reward which compensates him for the burden of administrative duties. Inasmuch as the *Rektor* is elected by his own colleagues, he usually receives their friendly cooperation, and, in turn, is very responsive to the mandates of the faculties. This relationship reduces the gap in understanding, interests, and purposes which often separates American faculties from the administrative heads, whose tenure usually depends upon money-raising and executive ability.

Moreover, in the United States the deans of the various schools or colleges within a university are generally appointed by the president. In Austria, the more democratic practice prevails of having the faculties elect the *Dekan,* or dean, to a one-year term of office.

State controls similar to those existing in Austria are found in American state universities. This system works well when the regime in power is liberal and nonpartisan in its university policies and respects the need for academic freedom in professional matters. The system is readily abused, however, when an autocratic government, whether federal or state, elects to use the university as an instrument for furthering political ideologies. The ease with which state institutions become prey to unscrupulous politicians was vividly demonstrated in Austria during the Hitler period—and in the American state of Louisiana during the regime of Huey Long. In American higher education, however, a dual system of state and private institutions exists side by side, and the relative freedom of the private institutions from governmental control permits them to set standards for academic freedom which serve generally as a safeguard for the maintenance of democracy in the governmentally operated schools.

It has been customary in Austria, as in most European countries, for national and party politics to exercise considerable influence. "In the multi-national Austro-Hungarian State, which included the universities of Prague, Cracow and Czernowitz, as well as Vienna, Graz and Innsbruck, political demonstrations and repercussions were a marked feature of university life between 1848 and 1918. Metternich's decrees against the liberal tendencies of the universities are only one example of the results of these political activities in the universities. Later, the Austrian government had to take similar measures to suppress national animosities within the Empire and the growing tendency to look to Prussia as the center of a new, greater Reich. Finally, in addition to these main currents, students' groups were further split up, not according to their university interests but according to their attitude toward liberalism, the Jews, and the Church.

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The more recent political struggle for and against Hitler is therefore not an isolated phenomenon but rather the latest stage in the long and turbulent political history of the universities in Austria." [4]

In view of this history it is necessary to record reservations concerning the wisdom of re-establishing over higher education a system of control residing directly in the political state. Perhaps no other course could have been followed. The present organization will have to be observed closely for some time to come and judged in terms of its efficacy in eliminating party politics from university policies, in redirecting commendable political interests of students from narrowly partisan and dogmatic directions to broadly humanitarian and professional concerns, and in promoting an atmosphere of devotion to free learning and research and of dedication to the general welfare of mankind.

Enrollments

Despite the considerable destruction of classroom, laboratory, and other facilities and the loss of teacher personnel, all institutions of higher education reported greater enrollments in 1945–46 than in any prewar year. Thus, the total enrollment soared from 17,360 in 1937–38 to 26,657 in 1945–46, and to 35,275 in 1946–47. This trend was arrested the following year, when the total was 35,157. In 1948–49 the enrollment declined sharply to 31,523. Another substantial reduction occurred in 1949–50 when the figure dropped to approximately 26,000.[5]

The pressure of students desiring to matriculate in professional schools and curriculums has been especially great, often taxing and surpassing the capacity of institutions and facilities. Nevertheless, no admission quotas have been set, in accordance with the time-honored tradition of admitting any student possess-

[4] *Education in Austria: A Report of the Situation up to June 1947.* Education Division, Allied Commission for Austria, British Element. Pp. 10-11. Appreciation is expressed to the British Education Division for permission to quote from this document.

[5] All figures given are for the winter semester.

ing the minimum scholastic requisites of a *Mittelschule Matura.*

Several causes account for the marked rise in university enrollments. First, since 1938 the young men who would normally have matriculated or have continued with studies in progress were diverted into military service. Many of these men returned to school after the war. Another reason is that tuition in 1945–47 cost practically nothing. Fees have remained fairly constant since prewar days, although the currency has suffered sharp inflation. Prior to the currency reform of December 1947 money was plentiful, but relatively worthless, in the market place; at the university it could still buy a prized education. In the third place, as had been true in Germany, "there [were] few attractive alternatives to college attendance for young men and women."[6] With retail business and industry operating during this period on a low level, there have been few opportunities for employment and for the initiation of careers in these fields.

Following the currency reform money became scarcer, and a remarkably rapid economic recovery began. Simultaneously, university enrollments declined considerably, as has been indicated in a preceding paragraph. It is noteworthy, though, that the decline has taken place almost wholly in the ranks of foreign students—mostly displaced persons—who in 1945–46 comprised about a third of the entire student population. That percentage has been reduced almost by one-half in the following years, as they have found opportunities for repatriation or resettlement in other countries.

The heavy enrollments have given rise to the fear that within a few years Austria will have an oversupply—particularly in urban centers—of doctors, lawyers, engineers, veterinarians, and other university-trained personnel. Students especially are apprehensive of their professional future, and the problem has been the subject of considerable discussion in the government and in various sectors of Austrian society. But the tradition of

[6] R. J. Havighurst, "Higher Education in Germany," *Journal of Higher Education*, XIX (January 1948), 13. In Austria, as in Germany, from 20 to 25 percent of the students are women.

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free admission [7] to higher education is so strong that neither of the large political parties has been willing, thus far, to accept a formula for restricting enrollments. Overcrowding in the universities and in the professions has been especially acute in the medical field, although an 8 percent decline in enrollment was noted in 1947–48. Nevertheless, a proposal has been made by university authorities to extend the medical course from five to six years. The additional year would be devoted to clinical practice, and would follow the fifth semester of academic study. The educational advantages of the proposal are patent, but it is interesting to note that students have reacted to the proposed measure with threats of a strike. The solution of the whole problem cannot be foreseen at present; it will depend in large part upon the ability of the nation to achieve a high-level economy with a standard of living for the average man considerably superior to that in prewar Austria.

Teaching and Denazification

As in America, no formal pedagogical study is required of college teachers; in both countries instructors are recruited and promoted largely on the basis of competence in research, rather than of demonstrated skill in teaching.[8]

The teaching staffs of Austrian colleges and universities were hard hit by the aftermath of war and the events leading to it. Between March 1938 and April 1945, 36 percent of the University of Vienna teaching staff left their positions—some voluntarily, but, for the most part, under compulsion. Another 8 percent died (of natural causes). (The percentages cited are considered fairly typical for all Austrian universities.) These

[7] Although it is true that the universities keep their doors open to all graduates of *Mittelschulen* (secondary schools), it should be noted that the latter are highly selective institutions enrolling only 10 percent, approximately, of the children of high school age. *Cf.* David Kopel and Harold E. Howland, "Secondary Education in Post-War Austria," *The School Review*, LVIII (February 1950), 75–83.

[8] Elementary and secondary school teachers, however, are required to study educational methodology, and the former must attend teacher-training institutions. *Cf.* David Kopel, "Teacher Education in Post-War Austria," *Educational Administration and Supervision*, XXXV (January 1949), 1–18.

vacancies were filled, in many instances, by politically reliable persons imported from Germany, as well as by politically qualified local products. However, of those members of the indigenous staffs who maintained their positions during the war years, a substantial proportion were Nazis by virtue of conviction or expediency. This is evident from the fact that of the approximately one thousand professors and instructors who staffed the universities, 788 (or 79 percent) were found implicated and were dismissed in 1945–46.

It should be noted that denazification was complicated by the inability of the Allies to accept a common policy until agreement on a National Socialist law was reached in February 1947. This law essentially confirmed the measures which had already been taken by the Austrian authorities on their own initiative and by the Allies in their respective zones. The law permitted nominal or so-called "less-implicated" Nazis to retain their positions when equally well-qualified individuals could not be found to replace them. Despite the acceptance of this principle, colleges and universities throughout Austria had generally found it necessary to dismiss a majority of their faculties.

The replacement of Nazis in the college teaching staffs proceeded rapidly, although the new men did not, as a rule, possess the scholastic attainments of their pre-Nazi predecessors. The greatest difficulty was in filling professorial chairs: 450 such positions were filled by 250 men of instructor rank, and by another 200 individuals employed merely on a temporary substitute basis. In 1947–48 the situation had improved somewhat: 440 professorial chairs were still inadequately filled; however, the number of substitutes had been reduced to 100. The total number of appointments (excluding assistants) had risen from 998 in 1945–46 to 1,047 at the end of 1947. Further improvement was recorded in 1948, when the number employed increased slightly to 1,052, and the number of inadequately filled professorial chairs declined to approximately 400.

It is noteworthy that relatively few of the professors who fled from Austria before 1940 have chosen to return, although

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nearly all had been invited by the government to come back. Unsettled conditions in that country, bitter memories, the greater attractiveness of many positions abroad, and a natural reluctance to pull up roots again in the countries of refuge, are understandable reasons for this behavior.

Some vacancies have been especially difficult to fill and, unfortunately, still remained after two, and even three, years. For example, the important chair of English at the University of Vienna had no occupant until 1948 when arrangements were finally concluded for a distinguished professor to take the position. It is very significant that the greatest gaps existed at the levels of associate and assistant professors—the age group of thirty to forty-five, roughly—which were particularly hard hit by denazification measures. It is this group which usually provides the universities in any country with the most vigorous leadership. The resources in research and teaching ability of this group are sorely missed.

Students, too, have been affected by denazification. Indeed, one category has received harsher treatment than that given to professors. In accord with the denazification law of 1947 all who were members of the National Socialist party are automatically excluded from the universities. That some injustices have been done is clear from the following statement in a British evaluation. "It is a strange irony that by the provisions of that Law a student who was 14 years of age when Hitler entered Austria in 1938, entered the Hitler Youth and, as often happened, was transferred to the Party before being called up in 1942, is automatically excluded from the university at which his professor, who perhaps joined the Party deliberately, is allowed to remain in office. As a result, therefore, of political pressure the Law is unfairly harsh on a small group of say 2,000–3,000 students (of a total of 26,000 in Austria) who were children in 1938, and were for the most part caught up involuntarily in the net of Nazi politics. However, this is a political rather than an educational issue." [9]

[9] *Education in Austria*, p. 13.

In summary, the crucial problem of denazification may be said to have been satisfactorily resolved by the end of 1947. Some injustices had been done to individuals, as is inevitable in the administration of a sweeping measure. Ministerial amnesties and lenient interpretations, however, served to assuage the harsh effects of a drastic law. There was relatively little evidence of resurgent nazism among professors or students, nor was there any significant amount of communist or other radical agitation. Several communist-inspired incidents did take place at the time of the Student Association elections in 1946, but the small percentage of Communists among the students seems to have lost, rather than gained, influence as a result. By far the great majority of students—estimated at 80 percent by the British element—display a rather passive attitude toward national politics, and apparently desire nothing more than the opportunity to continue their studies without political distraction.

Material Lacks of Students

Like the rest of the population, most students have led an impoverished existence during the first three years following the liberation. Rarely did they possess more than one suit of clothes. Their diet has been inadequate, consisting of about one-half the calory consumption of the average American student. In the homes of students it has been seldom, even in the winter of 1947, that the family could afford to heat more than one room of an apartment; and many classrooms were unheated completely. Textbooks were conspicuously absent because acceptable manuscripts in many instances had not yet been prepared, and publication difficulties have further retarded the availability of such materials. Students depended largely upon lecture notes for study purposes. Some material aid had been given by various countries and had been gratefully received. But the over-all picture at the end of 1947 was still bleak, despite the slight and gradual improvement in the situation since the middle of 1945. It has been gratifying, however, that the general economic recovery in

1948 and 1949 was accompanied by at least a moderate amelioration of students' living conditions.

Teaching and Research Facilities

One of the tragic ironies of the war was that the destruction wrought in Austria on buildings occurred during the last two months of hostilities. Some conception of the damage may be gained from an official report of the University of Vienna. Of its main building, for example, 11 percent of the floors were destroyed, and 18 percent heavily damaged. Sixty-five percent of the roof was destroyed, and all glass was shattered. Most of the windows and doors were heavily damaged. Gas, light, heating, and telephone facilities were seriously disrupted. Whole sections of some buildings were obliterated; others suffered relatively little. Most of the damage was done by artillery fire and air blasts from falling bombs, as well as by direct hits from the air.

Until July 1946 the following building materials were used in the main building of the University of Vienna for the most urgent repairs: 84 tons of cement, 38 tons of lime, 130 cubic meters of wood, 4,200 square meters of roofing felt, and 6,000 square meters of glass. (At the end of 1947 about one-half of all windows still contained emergency cardboard and plywood "panes.") About 1,700 cubic meters of rubbish had been removed. Students had contributed about 1,600 working days to the reconstruction. Costs of repairs amounted to 160,000 schillings; by July 1947 repair expenditures totaled 1,500,000 schillings.

The figures cited give some idea of the destruction and of the commensurate impairment of teaching facilities through temporary loss of classrooms. In buildings containing laboratories and libraries, substantial damage was also suffered, resulting thus not only in loss of teaching space but also of valuable facilities and equipment for experimental and bibliographical research. Although a great deal of laboratory equipment had been evacuated to places considered "safe," much of it was damaged in transit, or was lost or stolen. Other equipment had been re-

moved to Germany by the Berlin government, and only a portion of it could be identified and reclaimed. Important restorations were made in 1946 and 1947, largely through the efforts of the American and British elements. Similarly, with libraries which had been evacuated or "borrowed," thousands of valuable volumes had disappeared. A major library recovery occurred in July 1946 when 55 tons of books were unloaded at the library of the University of Vienna. Not until the winter of that year did work begin on bringing the books of this library into some semblance of order.

Finances

Austrian universities and colleges are state-supported institutions; only a negligible amount of their income has been derived from wealthy philanthropists since the dissolution of the monarchy. But in 1945 there was no organized state to render support, and the universities shifted for themselves, deriving such meager funds as they could from the provincial governments. The first postwar budget, for the school year 1946–47, provided a total of 20,325,700 schillings. Of this sum, 73 percent was allocated for salaries, and the remainder for supplies and maintenance. This budget was very similar in amount and comparable in composition to that for the last prewar year of 1938. In 1947 the total had increased by some 15 percent, but the proportionate allocations for salaries and maintenance had remained practically the same as in the previous year. The increased budget for 1947 represented no real provision for increased expenditures; it reflected moderate concessions to strong inflationary pressure and the concomitant tendency for salaries and for costs of other services and of goods to rise.

Following the currency conversion in December 1947, the schilling became increasingly firm and valuable. Simultaneously, and as a result largely of American economic aid, great increases took place in industrial production.[10] The net result was very favorable for the rehabilitation of university facilities: for the first time since the cessation of hostilities there were materials

[10] Indexes of industrial production in June 1949 stood at 113, using 1937 as 100.

to buy in considerable abundance, and the substantially increased budgets of 39,056,600 and 49,668,600 schillings for 1948 and 1949, respectively, made their purchase possible.

Not included in the foregoing figures are the additional sums provided by the Ministry of Trade and Reconstruction for badly needed repairs of war damage. In 1947 these amounted only to 300,000 schillings, and in 1948 to 800,000 schillings. For 1949 a very substantial allocation was made of 15,140,000 schillings, of which 10,000,000 schillings represented an American contribution through the ERP (European Recovery Program).

University salaries continued to rise in 1948, with rates of pay in December of that year approximately double those existing in April 1938. This improvement has been gratifying, although tempered by the fact that in the same period the cost of living had multiplied five times.

A most significant aspect of the budgetary picture is the extreme modesty of the financial support for higher education. Even in prewar years when Austria had a moderately well-to-do economy, the universities considered themselves poor. By American standards they were poor. In 1938 the total budget for thirteen institutions amounted roughly to some 20 million schillings, or four and a half or five million dollars. After allowing for the fact that in the thirties the schilling had a purchasing power in Austria approximately three times as much as its dollar equivalent in the United States, it is still clear that the total expenditures for higher education were very meager before, as well as after, the war. Indeed, American budgets for institutions with enrollments comparable to those in Austria are approximately ten times as large.

Perhaps the most striking consequence of this academic poverty, which has drastically limited the funds available for laboratory equipment and experimentation, has been the resultant emphasis on theory—at the expense, perhaps, of research. More accurately, the research which has been done has necessarily been of a basic type requiring, as a rule, very little costly equipment.

That this limitation has not been entirely disadvantageous to Austria's intellectual prowess is suggested by the fact that it can boast of nine Nobel prize winners, a per capita number which is not exceeded by any other nation in the world. Nevertheless, in the modern world of science the necessary equipment for carrying on vital research is becoming more and more complex, elaborate, and expensive. There is no gainsaying the great need of Austrian universities for extensive additions to their laboratory resources. Whether the colleges and universities will receive the financial subsidies required for this purpose depends again upon the degree to which a healthy economy may continue to develop in the years ahead.

Reorientation

From 1938 to 1945 Austrian colleges and universities existed under a Nazi-imposed quarantine, cut off from all intercourse with the scientific, technological, and professional circles of the United States and Great Britain. In those countries the war stimulated significant and vital advances in many fields of knowledge. Under the Nazis, however, science was exploited and prostituted while intellectual life generally was debased and stultified by a vicious social doctrine and a philosophy which denied freedom of inquiry and of expression. It is not surprising, therefore, that at the end of the war many frontiers of knowledge which had for long been the almost exclusive domain of Austrians and Germans were now occupied, by virtue of scientific conquests through discovery and invention, by workers from other lands.

In a world at peace the promotion of scientific pursuits in the various nations is as much a cooperative as it is a competitive activity. The great intellectual and scientific advances have been made, perhaps without exception, by a pooling of international contributions. A return to this state of affairs is highly to be desired in the interest of human welfare. To help Austrian scientists and scholars rebuild the foundations on which they might again contribute constructively to human knowledge has

been, therefore, an important objective of the American occupation mission.[11] This objective has been shared by the British and French elements, and, to some extent, by several nonallied countries, such as Sweden, Switzerland, and Denmark.

In the implementation of this goal high priorities have been given to projects such as the international exchange of university personnel; the establishment by several nations of cultural centers, libraries, and other related enterprises in Austria; the compilation of bibliographies of significant literature published outside of Austria since 1938; the successful arrangements for making available in Austrian bookshops at moderate prices many of the most important recent books and current journals printed in the English-speaking countries; and the distribution to all institutions of higher education and to libraries of generous gifts of representative, modern American books and periodicals in all of the sciences and arts. These are among the contributions which have been made in the endeavor to help Austrian scholars and scientists to reorient and rehabilitate themselves intellectually and morally for a constructive role in the postwar world.

[11] Periodic accounts of the American effort may be found in the *U. S. High Commissioner's Report for Austria,* issued monthly by the U. S. forces in Austria, and in the *Occupied Countries News Notes* and in other reports of the Commission on the Occupied Areas, American Council on Education, Washington 6, D.C.

The School, the Culture, and the Individual

By ROBERT W. CLOPTON [1]

PHILOSOPHY, and the areas of human endeavor which draw upon philosophy for guidance, have throughout the ages been plagued with confusing and misleading dichotomies. Politics, jurisprudence, economic theory, and social theory in general have periodically suffered from the misdefinition of their problems, the posing of supposed conflicts where no conflicts need exist. Education has suffered from at least its full share of this kind of confusion. It is the purpose of this paper to throw light on one phase of one of these needless dichotomies, the "individual versus social" argument, and by so doing to indicate the fallacious nature of the formulation of the problem of education as being either the transmission of the culture or the development of the creative individual.

The problem which is posed by this particular formulation did not exist so acutely in earlier times. In primitive societies education was concerned almost exclusively with the transmission of the cultural heritage of the tribe. Its effectiveness was gauged by the degree to which the younger generation was able and disposed to participate in and show loyalty to the schemes of life arrangements deemed proper by the elder, settled members of the society. The development of the individual which was desired was that which made him an "acceptable" member of a society which had definite outlines.

This concept of education has persisted into modern times, where it is highly inappropriate. Educators have known that

[1] The writer acknowledges his indebtedness to W. I. Thomas and Florian Znaniecki, authors of *The Polish Peasant in Europe and America* (New York: Knopf, 1918). Many of the ideas contained in this paper stem from Thomas. The reader who is familiar with this monumental work will recognize that a number of paragraphs are virtual paraphrases of passages which occur between pages 1830 and 1910. The work of Ralph Linton has also had a marked influence on the development of these ideas.

their task has become vastly more complicated, but until recently they had not admitted that the essential nature of the task was changed from what it had been. Even in the present day the approach is frequently that of analyzing the heritage which it is desired to transmit and then seeking for methods which will insure effective mastery by the pupil of the elements which analysis has provided. The *reductio ad absurdum* of this trend was the "scientific" movement in education in the first third of the twentieth century. Advocates of this movement set themselves to cataloguing the "typical activities" of the adult world and then undertook the construction of curriculums which would provide opportunity for pupils to master these activities.

In all the centuries of civilization this procedure has failed to give satisfaction, except in times and places where life was exceedingly stable and social change was slow. Recurring dissatisfaction with the results of education has led to continued revision of theory, reformulation of aim, and search for more effective methods of instruction. Often the dissatisfaction has been so acute as to lead to the rejection of much that was worth while or demonstrably true simply because it was associated so closely with a system or an outlook which, in its totality, was unworkable or even vicious. The very earnestness of the search for a better education has misled educators into fallacious definitions of their problems and into the posing of confusing and unwarranted dichotomies.

Even in relatively complex societies a large part of education continues to be effected in informal relationships and in response to the influence of institutions not ordinarily thought of as educational. The school is the institution which society has evolved to carry on those aspects of education which have not been cared for in the normal processes of informal association and participation in community life. The task the school has performed has been, until fairly recently, largely that of supplementing the informal education of everyday living and of imparting those skills and matters of information which demand systematic instruction.

But as a society grows more complex, the school must assume

other functions than the supplementary ones originally assigned to it. A complex modern society is no longer in all its parts in immediate touch with its members. It is composed of innumerable groups, many of which in turn are composed of still smaller groups. The immediate contacts of any individual member of the society are limited, and in his normal associations he is in communication with only a small fraction of the many groups which make up his society. Thus, it is no longer sufficient for the school merely to supplement the education which social organization provides informally to all its members.

The school must now assume directly many responsibilities which were formerly discharged by other institutions or by the society as a whole. It must organize and plan in order to accomplish things which were formerly accomplished in one way or another without being definitely planned for—indeed, frequently without being recognized or defined. Increasingly, the school must assume responsibility for the transmission of the cultural heritage—a responsibility formerly discharged in large measure by the home, the church, the guild, the intimately organized community, and a variety of other formal and informal relationships. It must provide, at the same time, for the unification of individual character, which is no longer a natural response to undirected forces in the environment, as was the case in simpler societies. It must, indeed, assume a certain degree of responsibility for giving force and direction to the renewal and revitalization of the culture itself.

This enforced delegation of responsibility has one especially fortunate implication. As a relatively greater proportion of the educative experience of the young is made the province of the school, education becomes subject to control in a measure not possible in the earlier situation. If educators can develop the wisdom and the insight which the task calls for, certain phases of education carefully and wisely planned may in some respects be more effectively carried on in the school than they ever could be in the more vague and undefined processes of natural induction.

As educators are confronted with this task, however, the un-

fortunate dichotomy referred to earlier intrudes itself into their discussions. A large number continue to see the responsibility of the school as being primarily that of transmitting the cultural heritage to oncoming generations, largely as this was accomplished in the informal arrangements of a simpler society. It is assumed by these that the unification of individual character (if, indeed, this responsibility of education is considered at all) will follow as a natural concomitant of the transmission of the heritage, as it can still be seen to do in primitive societies.

Opposed to those who hold the view just indicated are the growing number of educators who, influenced by the still dimly discerned principles of the new discipline of social psychology, see the task of education as that of the formation of character. They hold that only a carefully planned education can develop character which can maintain stability in the face of confusion, which can continue in a creative manner to integrate new and unforeseeable experience into a consistently evolving life organization. Faced with the evidence that the transmission of the cultural heritage attempted by customary means has *not* resulted in the formation of this kind of effective and creative personality, these educators in their vehemence seem to imply that the school must give over its concern with transmitting the heritage and concentrate its efforts primarily on the development of creative individuals. Some of their statements even seem to imply that the heritage of the past is so hampering in its effect that the less the school concerns itself with it, the better for all concerned!

According to the viewpoint presented in these pages, it is still possible to think of the task of education as being that of transmitting the cultural heritage. But the terms in which this task is conceived can make an incalculable difference in the methods which are employed, and in the results which are obtained. This is to say that educational effort undertaken for the *primary* purpose of transmitting the cultural heritage cannot succeed under the conditions imposed by the complexity of modern social organization. Education carried on with the view that the learner is present chiefly in order that he may master the elements laid out to be learned, so that the heritage may,

for its own sake, be passed on, can succeed only in spite of itself. Such effort is successful only in the degree to which it is inconsistent with its own profession, and only on those occasions on which it unwittingly employs methods to which it refuses recognition.

The task of transmitting the cultural heritage has traditionally been defined in terms which must result in that which is largely plain conditioning. The result of this process, insofar as it is successful, is the individual who accepts the arrangements for living which his predecessors in the society have worked out and bequeathed to him. If education so conceived were to be generally successful in accomplishing its avowed purposes, the pattern of the culture would indeed be the mold in which the individual would be shaped. He would become, in the words of the pioneer sociologist Gumplowicz, a mere "prism which receives the rays, dissolves them according to fixed laws and lets them pass out again in a predetermined direction and with a predetermined color."

As education achieves success in conditioning the young to fixed social arrangements, it impedes the creative evolution of individuals. At the same time it hampers the evolution of the culture. Culture is not a sum of fixed and determinate arrangements which can be handed down, either piecemeal or *in toto*. Whether or not it is recognized as such, culture is dynamic, always in process, and always undergoing transformation and change in some degree or other. It is always in evolution, always emerging and becoming. The process goes on, but it may be impeded or retarded if the adjustive and creative capacities of its members are crippled.

The individual who has been thus conditioned to accept the arrangements and loyalties deemed proper by his elders may, if he lives in a simple society, exhibit a stable life organization. Having been inducted into, and having accepted, the life around him, and having organized his own life with reference to fixed social arrangements, he may be said to be an integrated individual—so long as he continues to operate in an environment which continues to be familiar. When, however, he lives in a

complex social milieu which is itself marked by conflicting values, when he operates in a scene in which variant arrangements bid and vie for his loyalties, he cannot become effectively conditioned to a scene which is itself unstable. At most, he can be led into acceptance of selected galaxies of arrangements and values. Then, as he moves into new locations or new associations, or as the scene itself changes to bring other arrangements and values into the focus of his attention, he is thrown into uncertainty, conflict, and personal disorganization.

There was a time when individual attitudes were sufficiently stabilized in late adolescence or early maturity so that it was largely unnecessary to be concerned with their subsequent development and evolution. But modern civilization demands adjustment of attitudes and loyalties for the full period of active participation—throughout maturity. The keynote of the problem was struck a generation ago when Thomas emphasized the injunction that

> the center of pedagogical and ethical attention must, therefore, be entirely shifted; not the attainment of stability, but organization of the very process of personal evolution for its own sake should be the conscious task of social control.[2]

The theory which presents education as the guidance of the process of individual becoming, with the focus of its attention on the quality of the process itself rather than on the end product of the process, is a formulation which undertakes to meet the need which Thomas describes. The implementation of this theory will require long search for, experimentation with, and evaluation of methods "by which the individual can be trained in his youth to organize his later evolution spontaneously and without social help." Until such methods are evolved, it will continue to be more or less true, as it has been in the past, that the individual who does achieve such a dynamic organization will do so largely in spite of the ways in which social controls are imposed upon him, rather than because of them. As long as most education proceeds according to the older ideals, the

[2] *Ibid.*, p. 1890.

truly efficient, creative personality will be regarded as "genius" or prodigy, instead of the commonplace and usual product of an intelligently conducted education.

The new education, however, will, in the words of Thomas,

> furnish every individual with proper methods for spontaneous personal development, . . . teach him how to become not a static character and a conformist, but a dynamic, continually growing and continually creative personality.[3]

The chief single agency through which society may accomplish this task is, of course, the school. The work of educators whose purpose is "to furnish every individual with proper *methods* for spontaneous personal development" so that he may become "a dynamic, continually growing and continually creative personality" must be oriented to a body of principles which take account at the same time of the objective conditions of life and of the high aim of their undertaking. Such educators must not be sidetracked into the vain logomachy which opposes the transmission of the cultural heritage on the one hand to the development of dynamic, creative personality on the other. The problem is not one of choice between the two aims, but rather one of determination and refinement of method by which the heritage may be used *as a means* to the development of creative personality.

There is thus involved, first of all, the view which the educator takes of the heritage of the culture. Instead of viewing it as a body of knowledge and beliefs which must, at all costs, be "inculcated" into the impressionable minds of the young, he sees the heritage as an inexhaustible fund of resources upon which the developing individual may draw. Education which sees itself as a process of becoming will be concerned primarily with the evolution of methods by which the individual may most effectively integrate his experience. It will seek to make available to him the riches of this heritage, as factors within it are appropriate to the phases of becoming in which he is engaged.

This view will necessitate curriculum revision of the most

[3] *Ibid.*, p. 1907.

drastic sort. It will wreak havoc with traditional courses, which are usually bits of the cultural heritage neatly isolated and packaged for economical transmission. It will seek to make readily available, as they are needed and appropriate, many aspects of the heritage which do not fit into the usual course organization, and which the school has neglected because there has not been enough time left over after the items prescribed in the traditional curriculum have been mastered. The criterion for selecting from among the innumerable components of the heritage those things to be transmitted will cease to be the determination by the already-educated of what is important. Instead, it will be the relevance of the selected aspect of the culture to the developing life organization of the learner. This relevance will be real and actual, not the artificial, contrived, and spurious relevance which has been conjured up in the past to justify or to render "interesting" those things which had been adjudged "important" prior to the appearance of the learner on the scene.

The culture is a storehouse of data, of potential experience, of tried methods, of tested arrangements, and of solutions to situations which have in the past been problems. It does not contain ready-made answers to new problems, but it does offer tools and instrumentalities for attack upon these problems. The culture offers records of ways in which problems similar to current problems have been approached, and it shows the results of the efforts which have been directed at these problems. These records may constitute an invaluable resource to the individual who is developing and incorporating into his character structure his own methods of dealing with his own problems.

Instead of chaining and restricting action, culture drawn upon according to the emerging needs of the developing individual thus frees him and releases him from the wastefulness of trial-and-error methods. It provides him with instrumentalities for the evolution of an effective and creative life organization. It furnishes him the means by which to accomplish his desires. It provides the raw materials of which he makes his life. And, by ordering, directing, systematizing, and routinizing many of the recurring aspects of living, it reduces the amount of attention

and energy which he needs to devote to them; and thus it releases his energies for creative effort over and above the everyday affairs of life.

Education which makes this use of the cultural heritage implicitly acknowledges the dynamic character of the culture itself and assumes responsibility for its enrichment and constant revitalization. Such education recognizes that the culture which is effective in directing the interrelationships in which people are involved is the pattern of arrangements to which they respond. It is always in the process of being created out of the responses of its members. That is to say, the culture is always emerging, always becoming. It may and does utilize old ways of doing things. It may and does continue without significant alteration certain institutional arrangements. But it may also alter and revise any of the elements which it adopts, in order to adapt them and to have them function effectively in new conditions.

The development and evolution of the culture are functions of the operation and interrelationships of all sorts of institutional and other factors in society. The school is by no means in control of the situation, but it is one effective factor in it. The general pattern of culture growth seems to be that adults develop new patterns to meet new situations and teach them to the children. The children in turn, when they reach dominant status, use these now familiar patterns as the bases for further developments. Under existing circumstances it is not likely that the school can bring about immediate revolutionary changes in our culture. But it can develop appreciation of values whose general acceptance will make for a better society. And, by developing a generation of men and women who are constantly improving the methods by which they integrate their own life organization, it can contribute to the development of *better* new patterns for meeting new situations, so that when these are taught to the next generation the culture will have been significantly enriched.

The activities of creative individuals are a source of cultural enrichment. The individual who lives creatively makes available to his fellows his discoveries and his creations, whether in the

realm of science, technology, literature, the arts, politics, crafts, or homemaking. As these contributions are accepted and shared, they become aspects of an enriched culture.

There is still another way in which a culture is enriched and integrated. Especially in a complex society the cultural pattern leaves possibilities for individual choice in a wide range of situations, and with reference to whole gamuts of values. When two or more alternative ways of meeting a situation are available, there is a tendency for one to prevail in more and more instances. When one arrangement becomes generally prevalent, it approaches the core of the universals of the culture.

In almost every conceivable situation which permits of choice, one possibility will prove, upon examination and reflection, to be better than the others. As increasing numbers of people are enabled and encouraged to adopt better alternatives, these become the ones which prevail over other possible methods of dealing with the kinds of situations involved. As better alternatives are thus incorporated into the core of the culture, the less preferable ones tend to disappear. As the school fosters this process in which reflection and moral judgment become characteristic of the choice-making of developing individuals, it contributes to the integration of the culture of the society in which it operates.

The school has a responsibility for the transmission of the cultural heritage. But this responsibility can be discharged only in making this heritage available for *use* by individuals as means to their becoming. The heritage is transmitted only as it is used, only as it operates, and only as it is renewed. It cannot be transmitted otherwise.

The school has a responsibility to promote individual becoming. The discharge of this obligation involves guidance of the processes in which the pupil is in interaction with his environment, of which the cultural heritage is a factor of major importance. The school is concerned with the pupil's recognition of his membership in inclusive groups and with the meanings he derives from his experience in these groups. A central feature

in the responsibility for individual becoming is the guidance of the pupil in the development of ability to relate and organize his responses into a consistent scheme, that is, the ability to integrate his experience.

In discharging these two interpenetrative obligations, the school meets its responsibility for promoting the enrichment and revitalization of a continually emerging culture. It promotes consensus; it contributes to the harmonizing and synthesizing of values; it fosters creativity; and, most immediately, it promotes the prevalence of preferable alternatives. In doing these things, it contributes to the integration of the culture which is the process in which the culture itself continually becomes.

Television for Educational Institutions

By THOMAS E. CORBETT

EDUCATIONAL INSTITUTIONS quite literally cannot afford to do without their own educational television stations. Educational television offers a solution to both financial and educational problems. Of course, a large initial investment will be required to get started in educational television, but it will be worth the temporary sidetracking of many another project. Television for the educational institution will be an asset, rather than a liability, provided the operation is assigned the best talent available.

If education of all kinds is given only a minor fraction of the financial support it needs and deserves, it is because education has not been aggressively sold to the public. Educational products, both old and new, grow stale on the shelves for want of promotion. The educational world's advertising department is almost nonexistent as a force capable of moving the educational product into the great mass market which needs it most. Of course, there is the usual public relations officer who cultivates the friendship of the press and radio and who tries to see that the educational institution always puts its best foot forward, but educational salesmanship of a much higher order is required.

Surveys show, and everyday observations confirm, the fact that those people who have had the most education will spend the most for more. Repeat orders are much easier to get than new customers. Educational budgets, and book and periodical sales, are generally highest in those areas where there already exists a high degree of human competence. The time was when a relatively small group in the higher economic and educational brackets predominated in determining educational budgets either by donations, influence on endowment earnings, or through political power. This group has recently lost much of its economic and political power in favor of a much larger group, who are lower on the scale of economic and educational achievement.

It is this group which must be sold on education. The selling of education is in itself a part of the educational process. The educator must constantly sell, inspire, and motivate if the mind of the student is to be constantly inquiring. The educational institution must reach outside its walls with this type of educational salesmanship. Call it missionary work if you like; but if it is envisioned as a sort of uplift work, it will probably be doomed to the failure it deserves. Before effective selling can take place, the market will have to be studied and the product designed to fit the needs of the market. Customer demand does not necessarily follow a need in any automatic fashion. Customers cannot choose from a hundred products when they are only vaguely aware of half a dozen.

Television is the ultimate as a mass medium of communication. The public can be reached more economically and much more effectively than could possibly be the case with hundreds of teachers. The individual instructor is, in many situations, a totally inadequate influence on the educational process. Television must not be monopolized for the purpose of selling products designed almost exclusively to satisfy man's material needs. To do so would be to put the cart before the horse; for the skills, the character, and the social competence, which can result only from the right kind of education, are the horses which pull the cart along the road to either material or spiritual satisfactions.

Institutions of higher learning have too long concerned themselves with the amassing of knowledge in libraries, while the increasing gap between theory and practice, or between the best-known practice and the prevailing practice, has blocked the benefits which should accrue from advances in knowledge. It has been almost impossible to cope with this lag in the past; but now we have television, a new medium of communication, which will continue to improve technically until it meets the most exacting requirements. Television will democratize knowledge in a manner to rival printing in the vernacular and the free public schools. It will have all the advantages of the motion picture, without the inconveniences and high cost to the public.

Education has operated without the benefit of television thus

far; why can't it continue to do so? The reason lies in the very technology which created television. Technological advances have created personal, political, social, and economic problems of such complexity and magnitude as to place education in a race with catastrophe and totalitarianism. Centralization of power is taking place in the federal government, as technological advances create national problems where local ones existed at the time of the American Revolution when 90 percent of our population were highly self-sustaining farmers. The continuing industrial revolution continues to force centralization. What were formerly national problems are now, in many cases, world problems. The rate of educational obsolescence increases among the citizens of our democracy and its educators. Education needed television at least one hundred years ago. Perhaps, if educators had had it then, we would not have quite such a costly backlog of unsolved problems as plagues us today.

Technology and modern capitalism lifted the face of the "man with the hoe." They gave him a tractor, an assembly line, a steering wheel, thousands of dollars worth of tools, hundreds of horsepower, or a desk at which to deteriorate physically. These in turn produced social and personal problems, and leisure time. The work week dropped from seventy-two hours to forty hours. The thirty-hour week seems to be just around the corner. A closer look at these liberating effects of technology may show that man has become enslaved in a new way. Perhaps the newfound hours of leisure will have to be spent in performing man's more complex duties as a citizen. Who is to say that such heroic efforts may not be necessary in the chaotic state of the world today if we are to escape disaster, or to avoid the easy way of handing all our problems over to one man at the head of a totalitarian government? Can the political power and the leisure time of the functionally illiterate person be increased as it has been in recent years while television devotes the greater part of its budget to circuses, and the government stands ready with the dole? May it not be that a nation can perish because of effete rulers just as readily when the people are the rulers as when an emperor rules? Just as one technological advance—the

printing press—made democracy possible, so television, in the hands of educators, may be necessary to the continuance of democracy.

In the New England town meetings direct democracy works well because the citizen can inform himself directly. He knows personally nearly every officer and employee of the town. He gets his information by actual observation, or from sources he knows so well that he can readily separate the gossip and misinformation from the facts. More important, the facts are all there, not just those someone else wants him to have. He can see firsthand the condition of the streets and other town property. He can see where his tax money goes and how it gets there. The operations are on a scale commensurate with the experience and comprehension of the average citizen. Television must be the eyes of the citizen focused on the problems and multifarious activities of his complicated and distant national government. Walter Lippmann in his *Public Opinion*[1] says that "democracy in its original form never seriously faced the problem which arises because the pictures inside people's heads do not automatically correspond with the world outside." Television can correct and multiply the pictures in our minds. Mr. Lippmann further points out that "the original democrats assumed that somehow mysteriously there exists in the hearts of men a knowledge of the world beyond their reach." This may have been relatively true in a simpler age, but such a belief amid the complexities of the atomic age can lead only to such an accumulation of unsolved problems as to discourage all attempts at democratic solutions.

On every hand inadequate and obsolete educations break down on the road or creak along so slowly as to create paralyzing traffic congestion on the road to a solution of personal and social problems. If these breakdowns were in automobiles instead of educations, the owners would not be satisfied until they had followed the advice of the automobile advertisers who so effectively get the merits of their products before their prospective customers.

[1] New York: Macmillan Co.

The greater efficiency of a motion picture or a television program in the vivid and accurate transmission of ideas is not only necessary as a labor-saving device, but it is virtually the only way some people will be capable of learning many of the things they need to know in the time they have available or will make available. The average citizen will not allow his duties as a citizen to cut into his leisure-time activities to an extent commensurate with the exigencies of the situation, unless television is used to make him conscious of the necessity for doing so.

A number of scientific studies with large groups of people have shown that the general reading ability of adults is not sufficient to provide them a basis for thinking independently on matters of importance. Great advances have been made in the methods of teaching reading, and through studies of readability aimed at creating readable writing. Yet, great as these advances are, they have made little more than a dent in the over-all problem. Reading is work for the functionally illiterate; it is deciphering when the material becomes more difficult than the comic books or the headlines. These people are largely incapable of understanding the world beyond their reach from printed or spoken words. Words are only symbols; many of them are very abstract in their meanings. It is difficult for the academically trained person who moves largely in a world of academically trained persons to understand the aversions, the misconceptions, and the frustrations experienced by most people when faced by words in a quantity and of a kind calculated to present the intricacies of the modern social problems with which we must cope through the channels of democracy. Television and films economically and conveniently brought into the home by television must do the job, or it won't be done. Television will be the great equalizer. It will, for certain practical purposes, level out great variations in what has commonly been referred to as intelligence. It is generally recognized that many people have little capacity for profiting to a desirable extent by the offerings of secondary and higher education where the liberal studies are presented. Much of this is due to an inability to handle symbols, whether they be verbal or mathematical. Television

and film should make it possible to present effectively many concepts too difficult for the understanding of those who now become discouraged and drop out of educational institutions. Even the most competent student can be taught more correct impressions per minute by television than he is likely to get by reading much of the "gobbledygook" written by many of our specialists.

The radio filled the gap to some extent for the nonreader, but radio, like print, depends almost entirely on the use of language, a more or less imperfect form of communication, as a study of modern semantics will show. Radio's great speed is still the speed of the spoken word. It offers almost nothing as a time-saving device for the competent reader who can read much faster than anyone can speak.

Institutions of higher learning probably have a larger reservoir of good will among the unacademically inclined than have the public schools. Many of these people had no great liking for school. They are not inclined to go back to it. Yet, they look with a sort of awe upon the great university, an awe born largely out of respect for the generally superior economic position of its graduates. People generally are more likely to respond to an invitation to learning from a great university than they are to an invitation from their local public schools. However, this reservoir of good will could soon be dissipated, unless educational broadcasting is given a status which will enable it to command the best of educational talent. To do less would be poor public relations. The proudest work of the university may fail to sell itself to the public, because, even though television may overcome many language barriers, there are psychological barriers to understanding which must be dealt with effectively.

If the average citizen who has little background for higher education were to walk into many university classrooms, the psychological barrier between the professor, the students, and the citizen would be so great as to cause mental and emotional disturbances. There would be little by way of a common body of experience upon which to base educational salesmanship. The distressed person would, in all probability, be as likely to

blame the professor or the institution as himself for the incomprehensible or, to his mind, erroneous concepts presented. It is true that many professors operate in an ivory tower, and the converse is also true that many other people operate in mental and emotional dungeons. This is not intellectual snobbery; it is a recognition that psychological barriers exist and must be overcome. In many cases it will mean the re-education of the professor quite as much as re-education of the public. The ways of life and thought habits of the farmer, the miner, the banker, the industrialist, and the professor have many things in common, but each has experiential limitations which impose barriers to understanding. The semantic movement has exposed the weakness of language in bridging psychological barriers, but it has done little to develop a science of meaning capable of overcoming basic experiential limitations. A knowledge of the great literature, and the better current literature, of the world might go a long way toward providing the necessary experience vicariously, but few people have the necessary time, inclination, or reading ability to gain such knowledge. Television and film can make such literature available in a form easily understood and appreciated by millions who now are outside the pale of its influence.

If more money is spent on such trivialities as cigarettes and cosmetics than is spent on education, it is partly because these products are sold effectively. That it is relatively easier to sell many products other than education is due to the fact that the satisfactions derived from education are not always apparent for some years, and, in some cases, satisfy cultivated rather than inherent needs. An important factor in desirable educational outcome is the increased ability of the individual to defer immediate satisfactions in favor of greater future or more enduring satisfactions not readily apparent. Television must aim to get this message across, for only people capable of working for distant goals will devote time or money to education. Education must eternally battle for vision on the part of students and taxpayers. The easy thing for the student, the politician, and the taxpayer is to grasp for the immediate satisfaction, or to satisfy

the most pressing demand for money rather than the most important. Too often the immediate problem assumes a false importance at the expense of more important long-range needs. An individual may follow his own interests and whims in the choice of a vocation as long as his choice sustains him economically, but society can recognize no such individual right with respect to civic duty. A free society, in the interest of its own preservation, cannot allow individuals to go their way unmolested or unharassed by civic duty. We can and do force education upon the young. The adult must not be permitted to escape a most persuasive, even a conscience-disturbing, salesmanship of education for democratic living. Because insufficient money is spent on this type of education, we lose each year a much vaster amount through short-sighted public policy and an inefficient groping with unsolved problems.

Public policy is being made this year for television. The Federal Communications Commission has under consideration the assignment of forty-two new channels to television. At least every fourth or fifth channel should be reserved for the use of nonprofit educational institutions. Channels assigned on this basis might well prove to be more equitable than an assignment of a block of channels in either the upper or lower reaches of the television band, because the higher and lower frequencies may not be equally satisfactory.

A good case could be made for assigning more channels to educational television than to commercial television. Billy Rose, an authority in the field of entertainment, puts the problem this way:

> The seven television stations in New York need 294 new half-hour shows per week if they are each to provide three hours of evening programming, and approximately 200 of these shows must be of national, or at least coaxial-cablewide interest. I soberly submit that there isn't now and never has been that much top-flight show business at any one time—and that Barnum, Cohan and Ziegfeld, working in shifts, couldn't have produced that many good shows in a single week if they'd had their pick of all the entertainment on this bilious green earth.

A study of the catalogues of any large university will lead

to the conclusion that the university offers more hours of program than any two or three of the entertainment media. Thus, from the standpoint of sheer volume of output, the educational world should eventually need more television channels than the entertainment world. Television has already run through virtually all the vaudeville acts, and is repeating itself seriously in many fields. Where theaters run stage shows for months, or even years, television will dispose of a play in one showing. The motion picture industry produces about three hours of new program daily which is not at present available to television. No doubt, the entertainment world can, and will, increase its production if the money to do so is available. However, virtually the entire expenditure for all forms of advertising would be required to pay program, transmitter, and coaxial-cable charges on a nation-wide, competitive system of television utilizing fully the present twelve and the proposed forty-two additional channels. We should be able to afford anything on television we can afford in a classroom, stadium, motion picture or legitimate theater, and even to some extent anything we can afford in print. Yet, our present commercial broadcasters cannot possibly give us this on advertising revenue alone. They will eventually make a profit in the large metropolitan areas, and provide some kind of television programming dedicated to the selling of goods. They will not be able to keep good sustaining programs on the air as they have done in some cases on radio, because of the much greater expense of television. Persons who are unfamiliar with the field are, at first, inclined to place "pay-as-you-see" television proposals in the same category as "rockets to the moon." However, the idea is far removed from this category. The members of the Federal Communications Commission have declared their minds to be open on the subject, and recently granted a petition by Zenith Radio Corporation to run a ninety-day experiment with television on a "pay-as-you-see" basis. Zenith expects to spend a half-million dollars on this trial run. Dr. Frank Stanton, president of CBS, recently went on record to the effect that the ultimate in television programming may be reached only through a combination of advertising revenue

and paid programming. Nearly everyone who has studied the problem, and whose thinking is not governed by investments, is in favor of one of the several proposed systems of "pay-as-you-see" television. Most people who are unfamiliar with the various proposals oversimplify the matter to "either we pay for this stuff we get over television or we get it free."

What might this far-from-improbable "pay-as-you-see" television contribute to education? If it can make any contribution, it would behoove educators to support it. Educational funds are never sufficient to do all the jobs which should be done. Some types of education, as mentioned before, are not readily salable, because the benefits from them are not readily apparent or immediately realized. Civic education falls in this category for most people. This kind of education should be free. Certain other types of education, especially that vocational education designed to increase the earning power of the student, can be financed largely by the student on a tuition basis. "Pay-as-you-see" television can collect tuition whenever it is deemed advisable. Since television will not require that the student leave his home or his job, he will have the earnings with which to pay his tuition, thus equalizing educational opportunity to some extent. Lost earnings and living away from home are the decisive financial blocks to more education for many people. A high, single admission charge and a low course charge on the private reception of "pay-as-you-see" television will provide conditions of privacy similar to the classroom where the professor can talk only to students who have the necessary background for understanding the work in progress. There will be little or, if desired, no chance that an eavesdropping public will gain sporadic admission to classes only to be baffled and alienated because of the previously mentioned psychological barriers to understanding. Some system of "pay-as-you-see" television can also be used with radio or facsimile broadcasting. Thus, if the expense of a television operation is not necessary, the privacy of "pay-as-you-hear" radio can be used. University extension personnel can use such a combination of private radio and television instead of traveling to off-campus locations for classes.

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Education is a plant of slow growth. The incentive or the opportunity to make fast money does not exist for the educator. Regrettable as it may be, it is, nevertheless, true that educational advances must sometimes await the demise of virtually a whole generation of taxpayers and educational personnel before long overdue changes can be made. Lack of money, inertia, and emotional responses to suggested changes retard new educational methods to a degree unknown to the field of technological change. The fault lies equally with educators and the public. Work as we might to speed up the process, it still will remain a fact that the educational use of television will come more slowly than the commercial use. Therefore, the Federal Communications Commission should be urged to take a determined stand in holding a fair share of this great natural resource, the radio spectrum, for the uses of education, just as large tracts of the public domain were once reserved for educational purposes.

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